

# **PRODUCTS & SERVICES CATALOG**

2023 CATALOG | JUNE EDITION



Premium FISH for Quality of Lives

www.cytotest.com

# Message from the CEO

'It is only the farmer who faithfully plants seeds in the spring, who reaps a harvest in the autumn." - B.C. Forbes.

CytoTest is one of the world's leading companies in the field of biotechnology and is best known for FISH probes. With customers including National Institutes of Health, Mayo Clinic, Walter Reed National Military Medical Center in USA and Karolinska Institute in Sweden, we remain committed to our customers in providing molecular and cytogenetics products with the highest quality and the most competitive prices on the market.

CytoTest will brace another milestone since its foundation. With over 800 products for genetic diagnosis and oncology testing, we specialize in both standard FISH probes as well as custom-designed probes tailored to our customers' needs. We are also working to build a global service center with distributors all over the world, to provide our customers with the best services and support.

We present this catalog as an easy reference guide for ordering as well as video training and educational purposes. We look forward to working with you. "Always remember our intentions; we will reach our goal eventually." No matter when and where, I will remember and firmly to this convictions, who served on customer for the benefit of all mankind.

## A standard protocol for CytoTest FISH probes:

https://youtu.be/Vghuef3y1EI

Reinhard Ebner, PhD CEO/ President





# OUR COMPANY

CytoTest Inc. is a world's leading biotechnology company providing high quality, innovative and affordable molecular cytogenetic products and services. Our US headquarters are located in suburban Washington, DC, in Maryland, close to the National

Institutes of Health (NIH), one of the worlds leading centers for biological research. Our proximity to and interaction with NIH, along with spirited connections with our other strategic partners in the academic, biotechnology and clinical communities enables us to stay at the forefront of diagnostic medicine and closely monitor trends and developments in the field of molecular cytogenetics.



#### **QUESTIONS?**

If you have questions about any of the CytoTests products, please contact us Email: sales@CytoTest.com

#### **USA**

CytoTest Inc. 1395 Piccard Drive, Suite 308, Rockville, MD 20850

Tel: 1-202-505-0204 Fax: 1-240-238-6615









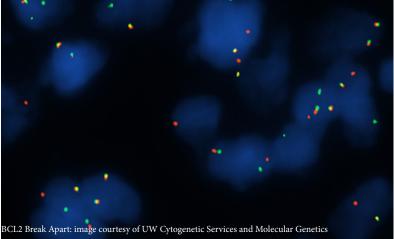




# OUR PRODUCTS

Our products are prepared for both research and diagnostic purposes in the US, China and worldwide. All of our products are manufactured in accordance with relevant regulations, and are quality tested to assure they meet the highest standards. A multiyear optimization effort resulted in products with higher quality than other probes used in the industry. We carefully follow scientific and technology advances, observe leading-edge discussions of diagnostic-industry standards, certification and regulatory requirements. We stay alert for consensus shifts relevant to in virto diagnostics (IVDs) and laboratory developed tests. (LDTs)





We specialize in the design and production of DNA Fluorescence in situ hybridization (FISH) probes. FISH is a powerful technique designed to detect presence or absence, location, integrity and amount of genomic sequences in tissue samples or cells. Introduced in the early 1980s as a cytogenetic research tool, it is now the most important technique for the clinical diagnosis of chromosomal abnormalities. Since its founding CytoTest Inc. has advanced its technologies from generating fluorescently labeled single nucleotides to the design and manufacturing of FISH probes. To date, we have successfully developed and tested a diverse series of DNA FISH probes for molecular diagnostic applications in oncology, personalized medicine, prenatal testing, theranostics and other areas. Our pipeline includes probes for clinically validated, as well as research-stage targets and custom-designed products. New products are added continually, in part derived from our internal research and development efforts, but more often as a result of requests for development of specific tests from our customers, especially in the areas of rare cancers and of companion diagnostics for novel therapeutics.





### **Custom Probe Services**

CytoTest frequently receives requests for custom synthesized probes, for novel, rare or specialized applications.

If you are looking for a FISH probe not listed in this catalog, please do not hesitate to contact us by email or phone!

Our pipeline includes probes for clinically validated as well as research-stage targets and custom-designed products. New products are added continually, in part derived from our internal research and development efforts but more often as a result of requests for the development of specific tests from our customers, especially in the areas of rare cancers and of companion diagnostics for novel therapeutics.

If you are looking for a probe, kit or reagent and cannot find it on our website or in our catalog, please let us know! – Your desired product may already be in the pipeline, or may have been recently added and not yet listed. You may only seek a minor modification to design or synthesis of an existing product, e.g. in a new non-standard color or with enhanced intensity, or you may be looking for an entirely new probe or probe set.

We will work with you in a flexible and accommodating fashion, in whichever collaborative model is most preferable and convenient for you, and carry out one or all of the development process steps, including

- initial design
- synthesis and testing
- quality control and performance validation
- protocol optimization

Custom probe synthesis will be considered completed only after you have received an optimized solution appropriate for your laboratory, clinical or research project. Finally, we will help you to adjust use protocols for unconventional or challenging sample types, such as dense or calcified tissues, complex biological fluids, or specimens derived from unconventional fixing protocols or cell spreads.

Please tell us about your desired reagent or intended application via:

phone: 1-202-505-0204 email: sales@cytotest.com

Our scientists will be honored to assist you in any way they can.





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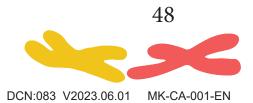




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# Human Whole Chromosome Painting Probes (WPP)

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#### ERBB2/CCP17 FISH Probe Kit

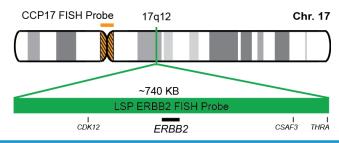


Cat. No. CT-PAC001-10-GO (100 μL)

# ERBB2/CCP17 FISH Probe Kit

The ERBB2/CCP17 FISH Probe Kit is designed to detect the human ERBB2 gene located on chromosome band 17q12, along with the number of chromosome 17 copies per cell. Abnormal expression of the ERBB2 gene – also known as NEU, NGL, HER2, TKR1, CD340, HER-2, MLN 19 or HER-2/neu – has been observed in breast carcinoma and many other solid tumor types.

Cont.	Color
LSP ERBB2 FISH Probe	CytoGreen
CCP17 FISH Probe	CytoOrange



#### ERBB2/CCP17 FISH Probe Kit

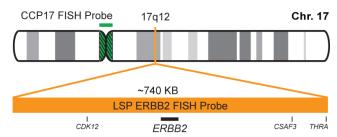


Cat. No. CT-PAC001-10-OG (100 µL)

## ERBB2/CCP17 FISH Probe Kit

The ERBB2/CCP17 FISH Probe Kit is designed to detect the human ERBB2 gene located on chromosome band 17q12, along with the number of chromosome 17 copies per cell. Abnormal expression of the ERBB2 gene – also known as NEU, NGL, HER2, TKR1, CD340, HER-2, MLN 19 or HER-2/neu – has been observed in breast carcinoma and many other solid tumor types.

Cont.	Color
LSP ERBB2 FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen







#### ERBB2/TOP2A/CCP17 FISH Probe Kit

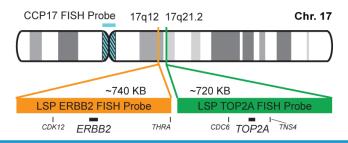


Cat. No. CT-PAC007-10-OGA (100 μL)

### ERBB2/TOP2A/CCP17 FISH Probe Kit

The ERBB2/TOP2A/CCP17 FISH Probe Kit is designed to detect the human ERBB2 gene, located on chromosome band 17q12, and the TOP2A gene on chromosome band 17q21.2, along with the number of chromosome 17 copies per cell. Abnormal expression or rearrangements of both genes (ERBB2 – also know as NEU, NGL, HER2, TKR1, CD340, HER-2, MLN 19 or HER-2/neu – and TOP2A – also known as TOP2 or TP2A) has been observed in breast carcinoma and many other solid tumor types.

Cont.	Color
LSP ERBB2 FISH Probe	CytoOrange
LSP TOP2A FISH Probe	CytoGreen
CCP17 FISH Probe	CytoAqua



#### TOP2A/CCP17 FISH Probe Kit

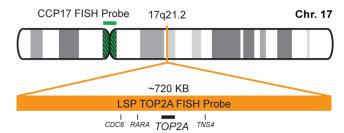


Cat. No. CT-PAC008-10-OG (100 µL)

## TOP2A/CCP17 FISH Probe Kit

The TOP2A/CCP17 FISH Probe Kit is designed to detect the human TOP2A gene located on chromosome band 17q21.2, along with the number of chromosome 17 copies per cell. Amplification and abnormal expression of the TOP2A gene – also known as TOP2 or TP2A – has been observed in breast cancer and other tumor types.

Cont.	Color
LSP TOP2A FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen







#### MYC/CCP8 FISH Probe Kit

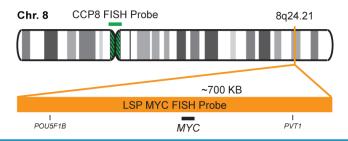


Cat. No. CT-PAC017-10-OG (100 µL)

## MYC/CCP8 FISH Probe Kit

The MYC/CCP8 FISH Probe Kit is designed to detect the human MYC gene located on chromosome band 8q24.21, along with the number of chromosome 8 copies per cell. Rearrangements and abnormal expression of the MYC gene – also known as EV MRTL, MYCC, c-Myc or bHLHe39 – have been observed in Burkitt's Lymphoma and other hematological malignancies, myeloma, as well as breast, cervical, colon, ovarian and other tumor types.

Cont.	Color
LSP MYC FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen



#### MYB/CCP6 FISH Probe Kit

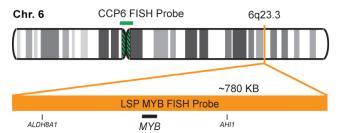


Cat. No. CT-PAC018-10-OG (100 µL)

## MYB/CCP6 FISH Probe Kit

The MYB/CCP6 FISH Probe Kit is designed to detect the human MYB gene located on chromosome band 6q23.3, along with the number of chromosome 6 copies per cell. Rearrangements and abnormal expression of the MYB gene – also known as efg, Cmyb, c-myb or c-myb\_CDS – have been observed in acute and lymphoid leukemias, colorectal, breast and other solid tumors and malignancies.

Cont.	Color
LSP MYB FISH Probe	CytoOrange
CCP6 FISH Probe	CytoGreen







#### XIST/CCPX FISH Probe Kit

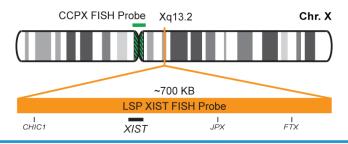


Cat. No. CT-PAC020-10-OG (100 μL)

### XIST/CCPX FISH Probe Kit

The XIST/CCPX FISH Probe Kit is designed to detect the human XIST gene located on chromosome band Xq13.2, along with the number of chromosome X copies per cell. Rearrangements in the XIST gene region – also known as SXI1, swd66, DXS1089, DXS399E, LINC00001 or NCRNA00001 – have been observed in a number of familial and other conditions.

Cont.	Color
LSP XIST FISH Probe	CytoOrange
CCPX FISH Probe	CytoGreen



#### SDHB/CCP1 FISH Probe Kit

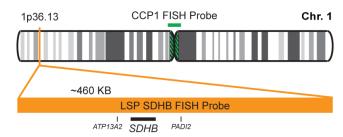


Cat. No. CT-PAC023-10-OG (100 µL)

## SDHB/CCP1 FISH Probe Kit

The SDHB/CCP1 FISH Probe Kit is designed to detect the human SDHB gene located on chromosome band 1p36.13, along with the number of chromosome 1 copies per cell. Abnormal expression of the SDHB gene – also known as IP, SDH, CWS2, PGL4, SDH1, SDH2 or SDHIP – has been observed in paragangliomas, pheochromocytoma and other conditions.

Cont.	Color
LSP SDHB FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen







#### MCF2L/LAMP1 FISH Probe Kit

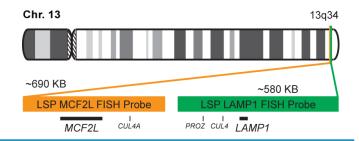


Cat. No. CT-PAC027-10-OG (100 µL)

## MCF2L/LAMP1 FISH Probe Kit

The MCF2L/LAMP1 FISH Probe Kit is designed to detect the human MCF2L gene, located on chromosomes band 13q34, and the LAMP1 gene region on chromosome band 13q34. Abnormalities in both genes have been reported in breast cancer and other malignancies.

Cont.	Color
LSP MCF2L FISH Probe	CytoOrange
LSP LAMP1 FISH Probe	CytoGreen



#### ERBB3/CCP12 FISH Probe Kit

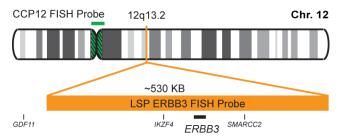


Cat. No. CT-PAC029-10-OG (100 µL)

## ERBB3/CCP12 FISH Probe Kit

The ERBB3/CCP12 FISH Probe Kit is designed to detect the human ERBB3 gene located on chromosome band 12q13.2, along with the number of chromosome 12 copies per cell. Abnormal expression of the ERBB3 gene – also known as HER3, LCCS2, ErbB-3, c-erbB3, erbB3-S, MDA-BF-1, c-erbB-3, p180-ErbB3, p45-sErbB3 or p85-sErbB3 – has been observed in breast, ovarian, prostate, pancreatic, lung and other cancers, and other conditions.

Cont.	Color
LSP ERBB3 FISH Probe	CytoOrange
CCP12 FISH Probe	CytoGreen







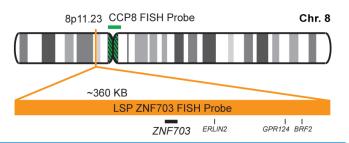


Cat. No. CT-PAC034-10-OG (100 µL)

### ZNF703/CCP8 FISH Probe Kit

The ZNF703/CCP8 FISH Probe Kit is designed to detect the human ZNF703 gene located on chromosome band 8p11.23, along with the number of chromosome 8 copies per cell. Abnormal expression of the ZNF703 gene – also known as NLZ1, ZPO1, ZEPPO1 or ZNF503L – has been observed in breast and larynx cancer and other tumor types.

Cont.	Color
LSP ZNF703 FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen



#### WHSC1L1/CCP8 FISH Probe Kit

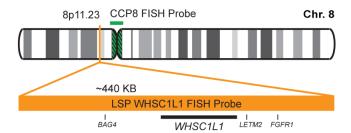


Cat. No. CT-PAC035-10-OG (100 µL)

## WHSC1L1/CCP8 FISH Probe Kit

The WHSC1L1/CCP8 FISH Probe Kit is designed to detect the human WHSC1L1 gene located on chromosome band 8p11.23, along with the number of chromosome 8 copies per cell. Rearrangements and abnormal expression of the WHSC1L1 gene – also known as NSD3 or pp14328 – have been observed in acute non-lymphocytic leukemia and other malignancies.

Cont.	Color
LSP WHSC1L1 FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen







#### ERBB2/TEKT3 FISH Probe Kit

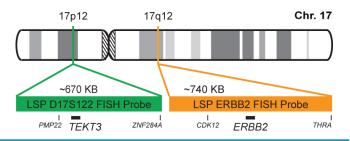


Cat. No. CT-PAC050-10-OG (100 μL)

## ERBB2/TEKT3 FISH Probe Kit

The ERBB2/17p Reflex FISH Probe Kit is designed to detect the human ERBB2 gene located on chromosome band 17q12, and the D17S122 STS marker region on chromosome band 17p12 as a control for integrity of the p-arm of chromosome 17. Abnormal expression of the ERBB2 gene — also known as NEU, NGL, HER2, TKR1, CD340, HER-2, MLN 19 or HER-2/neu — has been observed in breast carcinoma and many other solid tumor types. This probe panel can be used for ERBB2 reflex testing.

Cont.	Color
LSP ERBB2 FISH Probe	CytoOrange
LSP TEKT3 FISH Probe	CytoGreen



#### ZNF217/CCP20 FISH Probe Kit

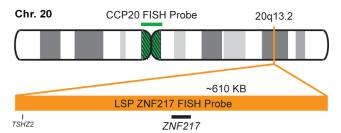


Cat. No. CT-PAC073-10-OG (100 µL)

# ZNF217/CCP20 FISH Probe Kit

The ZNF217/CCP20 FISH Probe Kit is designed to detect the human ZNF217 gene located on chromosome band 20q13.2, along with the number of chromosome 20 copies per cell. Abnormal expression of the ZNF217 gene – also known as ZABC1 – has been observed in breast and larynx cancer and other tumor types.

Cont.	Color
LSP ZNF217 FISH Probe	CytoOrange
CCP20 FISH Probe	CytoGreen







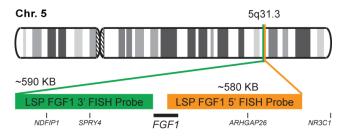


Cat. No. CT-PAC159-10-OG (100 μL)

# FGF1 Break Apart FISH Probe Kit

The FGF1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human FGF1 gene located on chromosome band 5q31.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other FGF1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the FGF1 gene – also known as AFGF, ECGF, ECGF-beta, ECGFA, ECGFB, FGF-1, FGF-alpha, FGFA, GLIO703, HBGF-1 or HBGF1 – have been observed in gastrointestinal tumors, breast cancer and other solid tumor types, and other conditions such as nerve injury and cardiac ischemia.

Cont.	Color
LSP FGF1 5' FISH Probe	CytoOrange
LSP FGF1 3' FISH Probe	CytoGreen



## NTRK3 Break Apart FISH Probe Kit

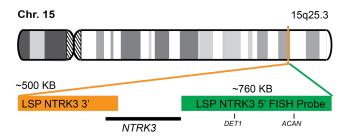


Cat. No. CT-PAC244-10-GO (100 μL)

## NTRK3 Break Apart FISH Probe Kit

The NTRK3 Break Apart FISH Probe Kit is designed to detect rearrangements in the human NTRK3 gene located on chromosome band 15q25.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other NTRK3 aberrations such amplifications. Rearrangements and abnormal expression of the NTRK3 gene - also known as TRKC, GP145-TrkC or gp145(trkC) - has observed in medulloblastoma, fibrosarcoma. nephroma, some breast carcinoma subtypes and other malignancies.

Cont.	Color
LSP NTRK3 5' FISH Probe	CytoGreen
LSP NTRK3 3' FISH Probe	CytoOrange







# CervicalCancer

TERC/CCP/ FISH Probe Kit	23
TERC/TERT/CCP7 FISH Probe Kit	23
TERT/CCP5 FISH Probe Kit	24
TERC/PTGS2/CCP7 FISH Probe Kit	24





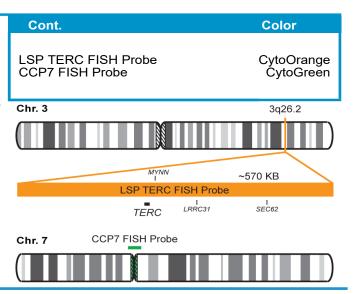
#### TERC/CCP7 FISH Probe Kit



Cat. No. CT-PAC002-10-OG (100 µL)

### TERC/CCP7 FISH Probe Kit

The TERC/CCP7 FISH Probe Kit is designed to detect the human TERC gene located on chromosome band 3q26.2, along with the number of chromosome 7 copies per cell. Amplification and abnormal expression of the TERC gene – also known as TR, hTR, TRC3, DKCA1, PFBMFT2 or SCARNA19 – is a hallmark of malignant cervical cancer but also is dysregulated in other tumor types.



#### TERC/TERT/CCP7 FISH Probe Kit



Cat. No. CT-PAC003-10-OGA (100 μL)

## TERC/TERT/CCP7 FISH Probe Kit

The TERC/TERT/CCP7 FISH Probe Kit is designed to detect the human TERC and TERT genes located on chromosome band 3q26.2 and 5p15.33, respectively, along with the number of chromosome 7 copies per cell. Abnormal expression of both genes (TERC – also known as TR, hTR, TRC3, DKCA1, PFBMFT2 or SCARNA19 – and TERT – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1) has been observed in cervical carcinoma and a variety of other tumor types.

Cont.	Color
LSP TERC FISH Probe LSP TERT FISH Probe CCP7 FISH Probe	CytoOrange CytoGreen CytoAqua
Chr. 3	3q26.2
<i>Μ</i> ΥΝΝ ~5	70 KB
LSP TERC FISH Probe	
TERC LRRC31	SEC62
5p15.33	Chr. 5
540 KD	
~540 KB LSP TERT FISH Probe	
I NKD2 TERT	LPCAT1
Chr. 7 CCP7 FISH Probe	





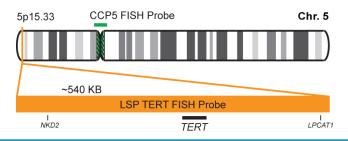


Cat. No. CT-PAC004-10-OG (100 µL)

### TERT/CCP5 FISH Probe Kit

The TERT/CCP5 FISH Probe Kit is designed to detect the human TERT gene located on chromosome band 5p15.33, along with the number of chromosome 5 copies per cell. Gains and losses of portions of the TERT gene – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1 – have been reported in a variety of tumor types.

Cont.	Color
LSP TERT FISH Probe	CytoOrange
LSP D5S23,D5S721 FISH Probe	CytoGreen



#### TERC/PTGS2/CCP7 FISH Probe Kit



Cat. No. CT-PAC005-10-OGA (100 μL)

## TERC/PTGS2/CCP7 FISH Probe Kit

The TERC/PTGS2/CCP7 FISH Probe Kit is designed to detect the human TERC and PTGS2 genes located on chromosome band 3q26.2 and 1q31.1, respectively, along with the number of chromosome 7 copies per cell. Abnormal expression of both genes (TERC – also known as TR, hTR, TRC3, DKCA1, PFBMFT2 or SCARNA19 – and PTGS2 – also known as COX2, COX-2, PHS-2, PGG/HS, PGHS-2, hCox-2 or GRIPGHS) has been observed in cervical carcinoma, various other solid tumor types, and other conditions.

Cont.	Color
LSP TERC FISH Probe LSP PTGS2 FISH Probe CCP7 FISH Probe	CytoOrange CytoGreen CytoAqua
Chr. 3 3q2	6.2
	Ш
<sup>M</sup> ΥΥNW ~570 KB	
LSP TERC FISH Probe  TERC LRRC31 SEC62	
<b>Chr. 1</b> 1q31.1	
~570 KB	
LSP PTGS2 FISH Probe	
F1002	A2G4A
Chr. 7 CCP7 FISH Probe	





# Bladder Cancer

PTGS2/CCP1 FISH Probe Kit	26
CDKN2A/CCP9 FISH Probe Kit	26
CDKN2A/CCP3,7,17 FISH Probe Kit	27
IPO11/AHRR FISH Probe Kit	27





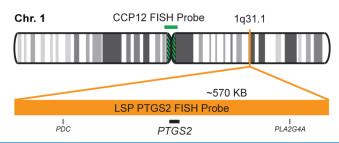


Cat. No. CT-PAC006-10-OG (100 μL)

### PTGS2/CCP1 FISH Probe Kit

The PTGS2/CCP1 FISH Probe Kit is designed to detect the human PTGS2 gene located on chromosome band 1q31.1, along with the number of chromosome 1 copies per cell. Abnormal expression of the PTGS2 gene – also known as COX2, COX-2, PHS-2, PGG/HS, PGHS-2, hCox-2 or GRIPGHS – has been observed in colorectal, lung, uterine, ovarian, pancreatic and many other tumor types.

Cont.	Color
LSP PTGS2 FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen



#### CDKN2A/CCP9 FISH Probe Kit

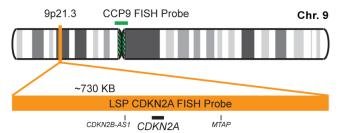


Cat. No. CT-PAC025-10-OG (100 µL)

## CDKN2A/CCP9 FISH Probe Kit

The CDKN2A/CCP9 FISH Probe Kit is designed to detect the human CDKN2A gene located on chromosome band 9p21.3, along with the number of chromosome 9 copies per cell. Abnormalities in CDKN2A – also known as ARF, MLM, P14, P16, P19, CMM2, INK4, MTS1, TP16, CDK4I, CDKN2, INK4A, MTS-1, P14ARF, P19ARF, P16INK4, P16INK4A or P16-INK4A – occur in gliomas and meningiomas as well as numerous other familial and sporadic tumor types.

Cont.	Color
LSP CDKN2A FISH Probe	CytoOrange
CCP9 (Pericentromeric) FISH Probe	CytoGreen







#### CDKN2A/CCP3,7,17 FISH Probe Kit



Cat. No. CT-PAC026-10-ORGA (100

## CDKN2A/CCP3,7,17 FISH Probe Kit

The CDKN2A/CCP3,7,17 FISH Probe Kit is designed to detect the human CDKN2A gene located on chromosome band 9p21.3 and simultaneously determine the copy number of human chromosomes 3, 7 and 17. Abnormalities in CDKN2A – also known as ARF, MLM, P14, P16, P19, CMM2, INK4, MTS1, TP16, CDK4I, CDKN2, INK4A, MTS-1, P14ARF, P19ARF, P16INK4, P16INK4A or P16-INK4A – occur in gliomas and meningiomas as well as numerous other familial and sporadic tumor types.

Cont.	Color	
LSP CDKN2A FISH Probe CCP3 FISH Probe CCP7 FISH Probe CCP17 FISH Probe	CytoOrange CytoRed CytoGreen CytoAqua	
9p21.3	Chr. 9	
~730 KB		
LSP CDKN2A		
CDKN2A MTAP		
S 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	

#### IPO11/AHRR FISH Probe Kit

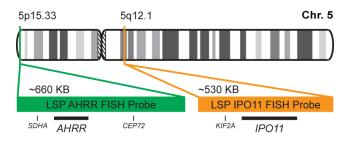


Cat. No. CT-PAC036-10-OG (100 μL)

## IPO11/AHRR FISH Probe Kit

The IPO11/AHRR FISH Probe Kit is designed to detect the human IPO11 gene located on chromosomes band 5q12.1, along with the AHRR gene region on chromosome band 5p15.33 as a control for integrity of the 5p subtelomeric region. Rearrangements and abnormal expression of the IPO11 gene – also known as RanBP11 – have been observed in bladder cancer and other tumor types.

Cont.	Color
LSP IPO11 FISH Probe	CytoOrange
LSP AHRR FISH Probe	CytoGreen







# Colon Cancer

MYEOV Break Apart FISH Probe Kit	29	
MYEOV/CCP11 FISH Probe Kit	29	





#### MYEOV Break Apart FISH Probe Kit

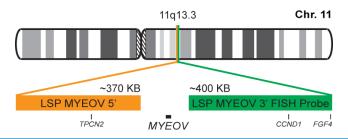


Cat. No. CT-PAC141-10-OG (100 μL)

# MYEOV Break Apart FISH Probe Kit

The MYEOV Break Apart FISH Probe Kit is designed to detect rearrangements in the human MYEOV gene located on chromosome band 11q13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations such amplifications. Rearrangements and abnormal expression of the MYEOV gene - also known as OCIM - have been observed in multiple myeloma, various solid tumor types, such as colon cancer, gastric cancer, neuroblastoma, oral squamous cell carcinoma, etc., and other malignancies.

Cont.	Color
LSP MYEOV 5' FISH Probe LSP MYEOV 3' FISH Probe	CytoOrange CytoGreen



#### MYEOV/CCP11 FISH Probe Kit

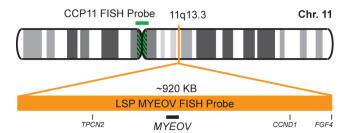


Cat. No. CT-PAC142-10-OG (100 μL)

## MYEOV/CCP11 FISH Probe Kit

The MYEOV/CCP11 FISH Probe Kit is designed to detect the human MYEOV gene located on chromosome band 11q13.3, along with the number of chromosome 11 copies per cell. Abnormalities in MYEOV – also known as OCIM – occur in multiple myeloma, various solid tumor types, such as colon cancer, gastric cancer, neuroblastoma, oral squamous cell carcinoma, etc., and other malignancies.

Cont.	Color
LSP MYEOV FISH Probe	CytoOrange
CCP11 FISH Probe	CytoGreen







# Liver Cancer

CISD2/CCP4 FISH Probe Kit	31
IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit	31





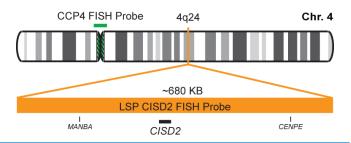


Cat. No. CT-PAC024-10-OG (100 μL)

### CISD2/CCP4 FISH Probe Kit

The CISD2/CCP4 FISH Probe Kit is designed to detect the human CISD2 gene located on chromosome band 4q24, along with the number of chromosome 4 copies per cell. Abnormalities in CISD2 – also known as ERIS, WFS2, ZCD2, NAF-1 or Miner1 – have been observed in liver cancer and other malignancies. The gene has been associated with Wolfram Syndrome.

Cont.	Color
LSP CISD2 FISH Probe	CytoOrange
CCP4 FISH Probe	CytoGreen



#### IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC069-10-GO (100 μL)

## IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit

The IGH-MYEOV Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and MYEOV gene located on chromosome bands 14q32.33 and 11q13.3, respectively. Rearrangements between the two regions have been observed in multiple myeloma and other cancer types.

Cont.	Color
LSP IGH 5'-3' FISH Prob LSP MYEOV FISH Prob	
Chr. 14	14q32.33
~680 KB LSP IGH 3' FISH Probe	~890 KB LSP IGH 5' FISH Probe
MTA1	IGH Locus
Chr. 11	11q13.3
	~920 KB
1	<b>-</b> 1 1
	MYEOV FISH Probe





# Skin Cancer

COL1A1 Break Apart FISH Probe Kit	33
COL1A1-PDGFB Dual Fusion/Translocation FISH Probe Kit	33
TYMS/CCP18 FISH Probe Kit	34
IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit	34
PDGFB Break Apart FISH Probe Kit	35
IRF4/DUSP22 Break Apart FISH Probe Kit	35
COL1A1-PDGFB Fusion/Translocation FISH Probe Kit	36
RB1/DLEU1/LAMP1 FISH Probe Kit	36





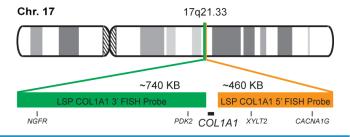


Cat. No. CT-PAC065-10-OG (100 µL)

## COL1A1 Break Apart FISH Probe Kit

The COL1A1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human COL1A1 gene located on chromosome band 17g21.33. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations such as Rearrangements amplifications. and abnormal expression of the COL1A1 gene - also known as OI4 - have been observed in dermatofibrosarcoma protuberans (DFSP) and some other tumor types.

Cont.	Color
LSP COL1A1 5' FISH Probe	CytoOrange
LSP COL1A1 3' FISH Probe	CytoGreen



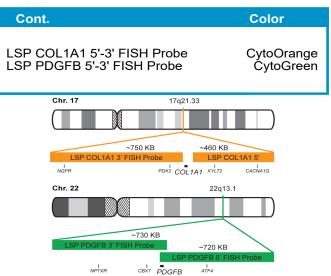
#### COL1A1-PDGFB Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC066-10-OG (100 μL)

## COL1A1-PDGFB Dual Fusion/Translocation FISH Probe Kit

The COL1A1-PDGFB Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human COL1A1 and PDGFB genes located on chromosome bands 17q21.33 and 22q13.1, respectively. Rearrangements between the two genes, the COL1A1 gene – also known as OI4 – and the PDGFB gene – also called IBGC5, PDGF-2, PDGF2, SIS, SSV or c-sis, have been observed in dermatofibrosarcoma protuberans (DFSP) and some other tumor types.







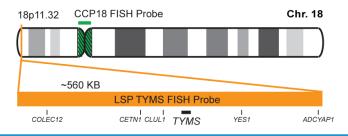


Cat. No. CT-PAC067-10-OG (100 μL)

## TYMS/CCP18 FISH Probe Kit

The TYMS/CCP18 FISH Probe Kit is designed to detect the human TYMS gene located on chromosome band 18p11.32, along with the number of chromosome 18 copies per cell. Abnormal expression of the TYMS gene – also known as TS, TMS or HST422 – has been observed in tuberous sclerosis, some kidney cancers and other conditions.

Cont.	Color
LSP TYMS FISH Probe	CytoOrange
CCP18 FISH Probe	CytoGreen



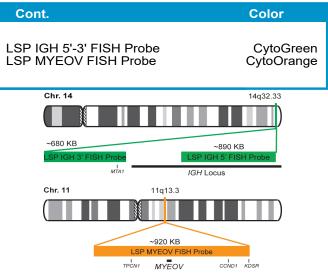
#### IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC069-10-GO (100 μL)

## IGH-MYEOV Dual Fusion/Translocation FISH Probe Kit

The IGH-MYEOV Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and MYEOV gene located on chromosome bands 14q32.33 and 11q13.3, respectively. Rearrangements between the two regions have been observed in multiple myeloma and other cancer types.







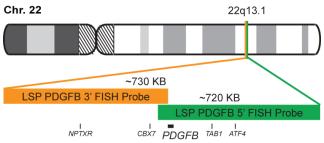


Cat. No. CT-PAC090-10-GO (100 μL)

# PDGFB Break Apart FISH Probe Kit

The PDGFB Break Apart FISH Probe Kit is designed to detect rearrangements in the human PDGFB gene located on chromosome band 22q13.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other **PDGFB** aberrations deletions such amplifications. Rearrangements and abnormal expression of the PDGFB gene - also known as CRL2, TSLPR or CRLF2Y - have been observed in dermatofibrosarcoma protuberans (DFSP) and some other tumor types.

Cont.	Color
LSP PDGFB 5' FISH Probe LSP PDGFB 3' FISH Probe	CytoGreen CytoOrange
Chr 22	22a13 1



## IRF4/DUSP22 Break Apart FISH Probe Kit

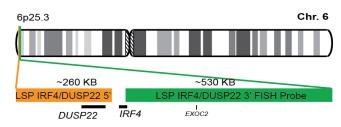


Cat. No. CT-PAC181-10-OG (100 μL)

## IRF4/DUSP22 Break Apart FISH Probe Kit

The IRF4/DUSP22 Break Apart FISH Probe Kit is designed to detect rearrangements in the human IRF4 and DUSP22 genes and the surrounding regions located on chromosome band 6p25.3. In addition to revealing breaks, which can lead to translocation of parts of the genes, inversion, or their fusion to other genes, the probe set can also be used to identify other IRF4 and DUSP22 aberrations such as deletions or amplifications. Rearrangements and expression of the IRF4 gene - also known as NF-EM5, MUM1, LSIRF or IRF-4 – and the DUSP22 gene - also called JKAP, JSP-1, JSP1, LMW-DSP2, LMWDSP2, MKP-x, MKPX or VHX - have been observed in multiple myeloma (MM) and other lymphoid malignancies, viral malignancies, cancer and lymphomatoid papulosis (LyP), a chronic papulonecrotic or papulonodular skin disease with

Cont.	Color
LSP IRF4/DUSP22 5' FISH Probe	CytoOrange
LSP IRF4/DUSP22 3' FISH Probe	CytoGreen





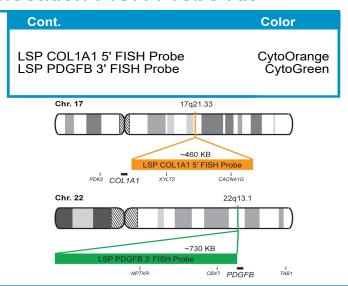




Cat. No. CT-PAC200-10-OG (100 µL)

#### COL1A1-PDGFB Fusion/Translocation FISH Probe Kit

The COL1A1-PDGFB Single Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human COL1A1 and PDGFB genes located on chromosome bands 17q21.33 and 22q13.1, respectively. Rearrangements between the two genes, the COL1A1 gene – also known as OI4 – and the PDGFB gene – also called IBGC5, PDGF-2, PDGF2, SIS, SSV or c-sis, have been observed in dermatofibrosarcoma protuberans (DFSP) and some other tumor types.



#### RB1/DLEU1/LAMP1 FISH Probe Kit



Cat. No. CT-PAC412-10-GOA (100 µL)

#### RB1/DLEU1/LAMP1 FISH Probe Kit

The RB1/DLEU1/LAMP1 FISH Probe Kit is designed to simultaneously detect the human RB1, DLEU1 and LAMP1 genes, located on chromosome band 13q14.2.

Deletions of varying lengths and other abnormalities in the locus for these three genes have been observed in lymphoid and myeloid leukemias as well as a number of solid tumor types.

Oont.		COIOI
	SH Probe FISH Probe FISH Probe	CytoGreen CytoOrange CytoAqua
Chr. 13	13q14.2 13q14.2-q14.3	13q34
	50 KB ~580 KB FISH Probe LSP DLE	U1 FISH Probe
ITM2B RB1	RCBTB2 CYSLTR2 SPRYD7 TRIM13 DLE	EU2 DLEU1
	LSP LAMP1 FISH	Probe
	PROZ CUL4 LAMP1	





Color

# Lung Cancer

ALK Break Apart FISH Probe Kit	38
EML4-ALK Fusion/Translocation FISH Probe Kit	38
EGFR/CCP7 FISH Probe Kit	39
MYC/CCP8 FISH Probe Kit	39
ERBB3/CCP12 FISH Probe Kit	40
TFG Break Apart FISH Probe Kit	40
ROS1 Break Apart FISH Probe Kit	41
YWHAE Break Apart FISH Probe Kit	41
KIF5B-RET Fusion/Translocation FISH Probe Kit	42
PDGFRA Break Apart FISH Probe Kit	42
PDGFRA/CCP4 FISH Probe Kit	43
TNIK/CCP3 FISH Probe Kit	43
CSF1R/EGR1 FISH Probe Kit	44
KIF5B Break Apart FISH Probe Kit	44
CSF1R/EGR1/TERT FISH Probe Kit	45
TFG/CCP3 FISH Probe Kit	45
EML4-ALK Tri-color Fusion/Translocation FISH Probe Kit (Note: This product is only available in some countries/regions. Please contact your local sales representatives.)	46





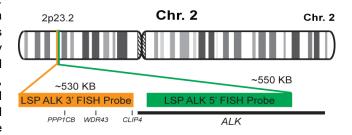


Cat. No. CT-PAC009-10-GO (100 µL)

# **ALK Break Apart FISH Probe Kit**

The ALK Break Apart FISH Probe Kit is designed to detect rearrangements in the human ALK gene located on chromosome band 2p23.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ALK aberrations such as deletions or amplifications. Initially discovered in anaplastic large cell lymphoma (ACLC), rearrangements of ALK - also known as CD246 or NBLST3 - have since been found in many types of malignancies, including B- and T-cell plasmacytomas, lymphomas, neuroblastoma, esophageal, breast, kidney, colon thyroid, lung and other cancers. A significant percentage of non-small cell lung cancer (NSCLC) cases harbor ALK gene abnormalities.

Cont.	Color
LSP ALK 5' FISH Probe	CytoGreen
LSP ALK 3' FISH Probe	CytoOrange



#### EML4-ALK Fusion/Translocation FISH Probe Kit

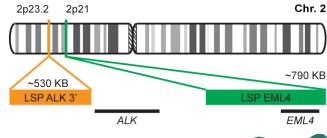


Cat. No. CT-PAC010-10-GO (100 µL)

# EML4-ALK Fusion/Translocation FISH Probe Kit

The EML4-ALK Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human EML4 and ALK genes, located on chromosome bands 2p21 and 2p23.2, respectively. Fusion between the two genes (EML4 – also known as C2orf2, ELP120, EMAP-4, EMAPL4 or ROPP120 – and ALK – also known as CD246 or NBLST3) is a common event in a subset of non-small cell lung cancer (NSCLC) cases.

Cont.	Color
LSP EML4 FISH Probe	CytoGreen
LSP ALK 3' FISH Probe	CytoOrange







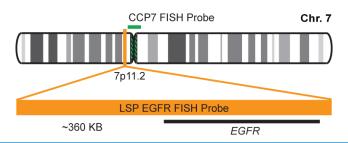


Cat. No. CT-PAC011-10-OG (100 μL)

## EGFR/CCP7 FISH Probe Kit

The EGFR/CCP7 FISH Probe Kit is designed to detect the human EGFR gene located on chromosome band 7p11.2, along with the number of chromosome 7 copies per cell. Abnormal expression of the EGFR gene – also known as TIS8, AT225, G0S30, NGFI-A, ZNF225, KROX-24 or ZIF-268 – has been observed in leukemia, fibrosarcoma, lung, breast, brain, liver, skin, prostate and other tumor types.

Cont.	Color
LSP EGFR FISH Probe	CytoOrange
CCP7 FISH Probe	CytoGreen



#### MYC/CCP8 FISH Probe Kit

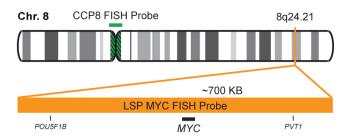


Cat. No. CT-PAC017-10-OG (100 µL)

# MYC/CCP8 FISH Probe Kit

The MYC/CCP8 FISH Probe Kit is designed to detect the human MYC gene located on chromosome band 8q24.21, along with the number of chromosome 8 copies per cell. Rearrangements and abnormal expression of the MYC gene – also known as EV MRTL, MYCC, c-Myc or bHLHe39 – have been observed in Burkitt's Lymphoma and other hematological malignancies, myeloma, as well as breast, cervical, colon, ovarian and other tumor types.

Cont.	Color
LSP MYC FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen







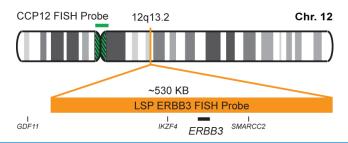


Cat. No. CT-PAC029-10-OG (100 µL)

#### ERBB3/CCP12 FISH Probe Kit

The ERBB3/CCP12 FISH Probe Kit is designed to detect the human ERBB3 gene located on chromosome band 12q13.2, along with the number of chromosome 12 copies per cell. Abnormal expression of the ERBB3 gene – also known as HER3, LCCS2, ErbB-3, c-erbB3, erbB3-S, MDA-BF-1, c-erbB-3, p180-ErbB3, p45-sErbB3 or p85-sErbB3 – has been observed in breast, ovarian, prostate, pancreatic, lung and other cancers, and other conditions.

Cont.	Color
LSP ERBB3 FISH Probe	CytoOrange
CCP12 FISH Probe	CytoGreen



# TFG Break Apart FISH Probe Kit

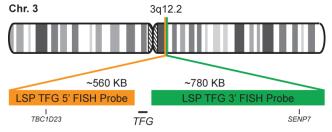


Cat. No. CT-PAC042-10-OG (100 µL)

# TFG Break Apart FISH Probe Kit

The TFG Break Apart FISH Probe Kit is designed to detect rearrangements in the human TFG gene located on chromosome band 3q12.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TFG aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TFG gene — also known as TF6, HMSNP, SPG57 or TRKT3 — have been observed in anaplastic large cell lymphoma, thyroid papillary carcinoma, extraskeletal myxoid chondrosarcoma, renal cell carcinoma and other cancer types.

Cont.	Color
LSP TFG 5' FISH Probe	CytoOrange
LSP TFG 3' FISH Probe	CytoGreen







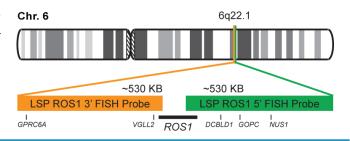


Cat. No. CT-PAC052-10-GO (100 μL)

# **ROS1 Break Apart FISH Probe Kit**

The ROS1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human ROS1 gene located on chromosome band 6q22.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ROS1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ROS1 gene – also known as ROS, MCF3 or c-ros-1 – have been observed in lung adenocarcinoma and various other tumor types.

Cont.	Color
LSP ROS1 5' FISH Probe	CytoGreen
LSP ROS1 3' FISH Probe	CytoOrange



# YWHAE Break Apart FISH Probe Kit

**ROS1 Break Apart FISH Probe Kit** 

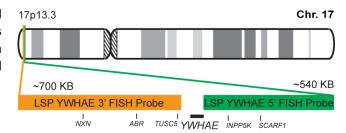


Cat. No. CT-PAC063-10-GO (100 µL)

# YWHAE Break Apart FISH Probe Kit

The YWHAE Break Apart FISH Probe Kit is designed to detect rearrangements in the human YWHAE gene located on chromosome band 17p13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other YWHAE aberrations such amplifications. Rearrangements and abnormal expression of the YWHAE gene - also known as MDS, HEL2, MDCR, KCIP-1 or 14-3-3E – have been observed in lung adenocarcinoma, endometrial stromal sarcoma and other tumor types.

Cont.	Color
LSP YWHAE 5' FISH Probe	CytoGreen
LSP YWHAE 3' FISH Probe	CytoOrange







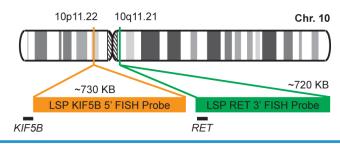


Cat. No. CT-PAC076-10-OG (100 μL)

## KIF5B-RET Fusion/Translocation FISH Probe Kit

The KIF5B-RET Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KIF5B and RET genes located on bands chromosome 10p11.22 and 10q11.21, respectively. Rearrangements and abnormal expression of the KIF5B gene - also known as KNS, KINH, KNS1, UKHC or HEL-S-61 - and between the genes have been observed adenocarcinoma and other tumor types.

Cont.	Color
LSP KIF5B 5' FISH Probe	CytoOrange
LSP RET 3' FISH Probe	CytoGreen



## PDGFRA Break Apart FISH Probe Kit

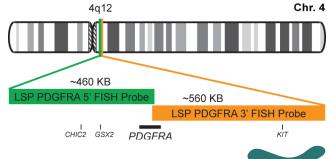


Cat. No. CT-PAC091-10-GO (100 µL)

# PDGFRA Break Apart FISH Probe Kit

The PDGFRA Break Apart FISH Probe Kit is designed to detect rearrangements in the human PDGFRA gene located on chromosome band 4q12. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other PDGFRA aberrations such as deletions amplifications. Rearrangements and abnormal expression of the PDGFRA gene - also known as CD140A, PDGFR2, PDGFR-2 or RHEPDGFRA have been observed in gastrointestinal stromal tumors (GIST), lung adenocarcinoma and other hematologic and solid tissue disorders.

Cont.	Color
LSP PDGFRA 5' FISH Probe	CytoGreen
LSP PDGFRA 3' FISH Probe	CytoOrange







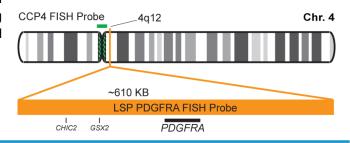


Cat. No. CT-PAC092-10-OG (100 µL)

## PDGFRA/CCP4 FISH Probe Kit

The PDGFRA/CCP4 FISH Probe Kit is designed to detect the human PDGFRA gene located on chromosome band 4q12, along with the number of chromosome 4 copies per cell. Rearrangements and abnormal expression of the PDGFRA gene - also CD140A. PDGFR2. PDGFR-2 known as or **RHEPDGFRA** have been observed (GIST), gastrointestinal stromal tumors lung adenocarcinoma and other hematologic and solid tissue disorders.

Cont.	Color
LSP PDGFRA FISH Probe	CytoOrange
CCP4 FISH Probe	CytoGreen



#### TNIK/CCP3 FISH Probe Kit

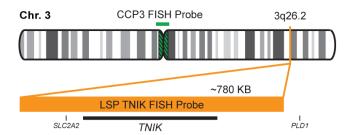


Cat. No. CT-PAC100-10-OG (100 μL)

# TNIK/CCP3 FISH Probe Kit

The TNIK/CCP3 FISH Probe Kit is designed to detect the human TNIK gene located on chromosome band 3q26.2, along with the number of chromosome 3 copies per cell. Abnormal expression of the TNIK gene has been observed in gastric, lung and other cancer types.

Cont.	Color
LSP TNIK FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen







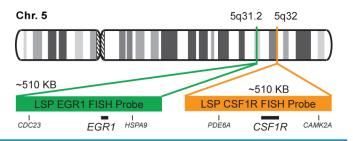


Cat. No. CT-PAC127-10-OG (100 µL)

## CSF1R/EGR1 FISH Probe Kit

The CSF1R/EGR1 FISH Probe Kit is designed to detect the human CSF1R gene, located on chromosome band 5q32, and the EGR1 gene on chromosome band 5q31.2. Abnormalities in CSF1R – also known as FMS, CSFR, FIM2, HDLS, C-FMS, CD115, CSF-1R or M-CSF-R – and abnormalities in EGR1 – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – have been observed in myeloid malignancies, lung cancer and several other cancer types.

Cont.	Color
LSP CSF1R FISH Probe	CytoOrange
LSP EGR1 FISH Probe	CytoGreen



## KIF5B Break Apart FISH Probe Kit

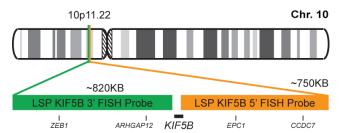


Cat. No. CT-PAC135-10-OG (100 µL)

# KIF5B Break Apart FISH Probe Kit

The KIF5B Break Apart FISH Probe Kit is designed to detect rearrangements in the human KIF5B gene located on chromosome band 10p11.22. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other KIF5B aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the CKIF5B gene – also known as KNS, KINH, KNS1, UKHC or HEL-S-61 – have been observed in lung adenocarcinoma and other tumor types.

Cont.	Color
LSP KIF5B 5' FISH Probe	CytoOrange
LSP KIF5B 3' FISH Probe	CytoGreen







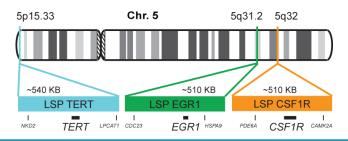


Cat. No. CT-PAC179-10-OGA (100 μL)

## CSF1R/EGR1/TERT FISH Probe Kit

The CSF1R/EGR1/TERT FISH Probe Kit is designed to detect the human CSF1R gene on chromosome band 5q32, the EGR1 gene on chromosome band 5q31.2, and the TERT gene on chromosome band 5p15.33. Abnormalities in CSF1R – also known as FMS, CSFR, FIM2, HDLS, C-FMS, CD115, CSF-1R or M-CSF-R – abnormalities in EGR1 – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – and abnormalities in TERT – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1 – have been observed in myeloid malignancies, lung cancer and several other cancer types.

Cont.	Color
LSP CSF1R FISH Probe	CytoOrange
LSP EGR1 FISH Probe	CytoGreen
LSP TERT FISH Probe	CytoAqua



#### TFG/CCP3 FISH Probe Kit

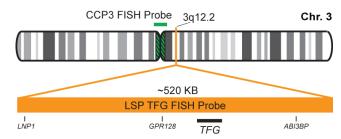


Cat. No. CT-PAC197-10-OG (100 µL)

# TFG/CCP3 FISH Probe Kit

The TFG/CCP3 FISH Probe Kit is designed to detect the human TFG gene located on chromosome band 3q12.2, along with the number of chromosome 3 copies per cell. Rearrangements and abnormal expression of the TFG gene – also known as TF6, HMSNP, SPG57 or TRKT3 – have been observed in anaplastic large cell lymphoma, thyroid papillary carcinoma, extraskeletal myxoid chondrosarcoma, renal cell carcinoma and other cancer types.

Cont.	Color
LSP TFG FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen









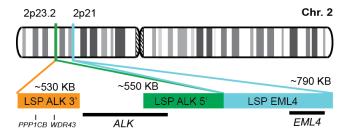
Cat. No. CT-PAC226-10-AGO (100 µL)

# EML4-ALK Tri-color Fusion/Translocation FISH Probe Kit

The EML4-ALK Tri-color Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human EML4 and ALK genes, located on chromosome bands 2p23.2 and 2p21, respectively. EML4 is also known as C2orf2, ELP120, EMAP-4, EMAPL4 or ROPP120. ALK is also known as CD246 or NBLST3. Rearrangements involving portions of these two genes have been observed in non-small cell lung carcinoma (NSCLC) and other cancers.

(**Note:** This product is only available in some countries/regions. Please contact your local sales representatives.)

Cont.	Color
LSP EML4 FISH Probe	CytoAqua
LSP ALK 5' FISH Probe	CytoGreen
LSP ALK 3' FISH Probe	CytoOrange







# Prostate Cancer

FUS Break Apart FISH Probe Kit	48
PTEN/CCP10 FISH Probe Kit	48
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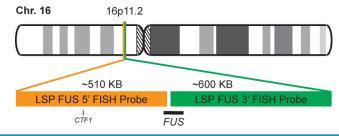


Cat. No. CT-PAC053-10-OG (100 µL)

# FUS Break Apart FISH Probe Kit

The FUS Break Apart FISH Probe Kit is designed to detect rearrangements in the human FUS gene located on chromosome band 16p11.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other FUS aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the FUS gene — also known as TLS, ALS6, ETM4, FUS1, POMP75 or HNRNPP2 — have been observed in alveolar rhabdomyosarcoma, prostate carcinoma and other tumor types.

Cont.	Color
LSP FUS 5' FISH Probe	CytoOrange
LSP FUS 3' FISH Probe	CytoGreen



#### PTEN/CCP10 FISH Probe Kit

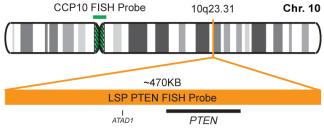


Cat. No. CT-PAC101-10-OG (100 µL)

# PTEN/CCP10 FISH Probe Kit

The PTEN/CCP10 FISH Probe Kit is designed to detect the human PTEN gene located on chromosome band 10q23.31, along with the number of chromosome 10 copies per cell. Loss or abnormal expression of the PTEN gene – also known as BZS, DEC, CWS1, GLM2, MHAM, TEP1, MMAC1, PTEN1 or 10q23del – is common in gliomas and prostate cancer and has been observed in a variety of other heritable and sporadic tumor types and conditions.

Cont.	Color
LSP PTEN FISH Probe	CytoOrange
CCP10 FISH Probe	CytoGreen







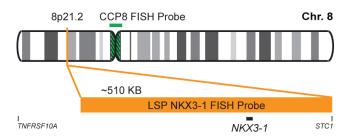


Cat. No. CT-PAC102-10-OG (100 µL)

## NKX3-1/CCP8 FISH Probe Kit

The NKX3-1/CCP8 FISH Probe Kit is designed to detect the human NKX3-1 gene located on chromosome band 8p21.2, along with the number of chromosome 8 copies per cell. Amplification and abnormal expression of the NKX3-1 gene — also known as NKX3, BAPX2, NKX3A or NKX3.1 — has been observed in prostate cancer.

Cont.	Color
LSP NKX3-1 FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen



#### CHD1/D5S23, D5S721 FISH Probe Kit

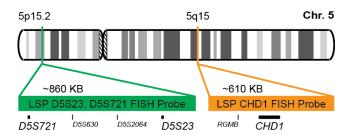


Cat. No. CT-PAC103-10-OG (100 µL)

# CHD1/D5S23, D5S721 FISH Probe Kit

The CHD1/D5S23, D5S721 FISH Probe Kit is designed to detect the human CHD1 gene located on chromosome band 5q15 and the D5S23-D5S721 marker region on chromosome band 5p15.2. Abnormalities in CHD1 occur in prostate cancer and other tumor types.

Cont.	Color
LSP CHD1 FISH Probe	CytoOrange
LSP D5S23,D5S721 FISH Probe	CytoGreen







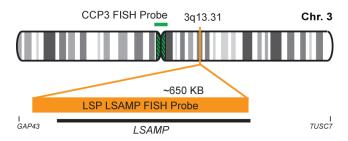


Cat. No. CT-PAC104-10-OG (100 µL)

## LSAMP/CCP3 FISH Probe Kit

The LSAMP/CCP3 FISH Probe Kit is designed to detect the human LSAMP gene located on chromosome band 3q13.31, along with the number of chromosome 3 copies per cell. Microdeletions and polymorphisms of the LSAMP genomic region have been reported during analyses of some rare congenital neuropsychiatric and behavioral disorders. Due to localized chromosomal aberrations identified in osteosarcoma cell lines, LSAMP is suspected to be a tumor suppressor gene in osteosarcoma. A novel recurrent deletion of the LSAMP locus has recently been described in African American men and found to be associated with aggressive disease progression.

Cont.	Color
LSP LSAMP FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen



#### CHD1/CCP5 FISH Probe Kit

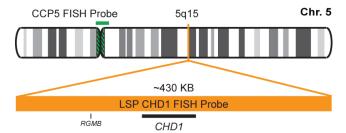


Cat. No. CT-PAC105-10-OG (100 µL)

# CHD1/CCP5 FISH Probe Kit

The CHD1/CCP5 FISH Probe Kit is designed to detect the human CHD1 gene located on chromosome band 5q15, along with the number of chromosome 5 copies per cell. Abnormalities in CHD1 gene occur in prostate cancer and other tumor types.

Cont.	Color
LSP CHD1 FISH Probe	CytoOrange
LSP D5S23,D5S721 FISH Probe	CytoGreen







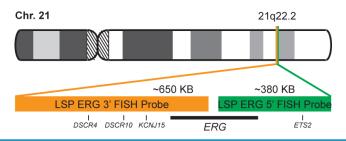


Cat. No. CT-PAC151-10-GO (100 μL)

# ERG Break Apart FISH Probe Kit

The ERG Break Apart FISH Probe Kit is designed to detect rearrangements in the human ERG gene located on chromosome band 21q22.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ERG aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ERG gene – also known as p55 or erg-3 – have been observed in Ewing's sarcoma, acute myeloid leukemia (AML), prostate cancer and other tumor types.

Cont.	Color
LSP ERG 5' FISH Probe	CytoGreen
LSP ERG 3' FISH Probe	CytoOrange



#### ETV1 Break Apart FISH Probe Kit

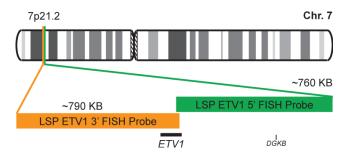


Cat. No. CT-PAC152-10-GO (100 μL)

# ETV1 Break Apart FISH Probe Kit

The ETV1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human ETV1 gene located on chromosome band 7p21.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ETV1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ETV1 gene – also known as ER81 – have been observed in Ewing's sarcoma, melanoma, prostate cancer and other tumor types.

Cont.	Color
LSP ETV1 5' FISH Probe	CytoGreen
LSP ETV1 3' FISH Probe	CytoOrange







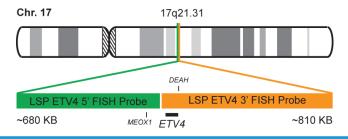


Cat. No. CT-PAC153-10-GO (100 µL)

# ETV4 Break Apart FISH Probe Kit

The ETV4 Break Apart FISH Probe Kit is designed to detect rearrangements in the human ETV4 gene located on chromosome band 17q21.31. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ETV4 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ETV4 gene – also known as E1AF, PEA3, E1A-F or PEAS3 – have been observed in melanoma, breast, lung, prostate and other cancers.

Cont.	Color
LSP ETV4 5' FISH Probe	CytoGreen
LSP ETV4 3' FISH Probe	CytoOrange



## TMPRSS2 Break Apart FISH Probe Kit

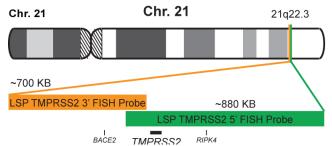


Cat. No. CT-PAC154-10-GO (100 μL)

# TMPRSS2 Break Apart FISH Probe Kit

The TMPRSS2 Break Apart FISH Probe Kit is designed to detect rearrangements in the human TMPRSS2 gene located on chromosome band 21q22.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TMPRSS2 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TMPRSS2 gene – also known as PP9284 or PRSS10 – have been observed in prostate cancer and other malignancies.

Cont.	Color
LSP TMPRSS2 5' FISH Probe	CytoGreen
LSP TMPRSS2 3' FISH Probe	CytoOrange







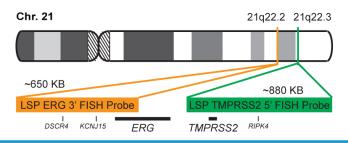


Cat. No. CT-PAC176-10-GO (100 μL)

## TMPRSS2-ERG Fusion/Translocation FISH Probe Kit

The TMPRSS2-ERG Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TMPRSS2 and ERG genes located on chromosome bands 21q22.3 and 21q22.2, respectively. Rearrangements between the two genes have been observed in prostate cancer and other malignancies.

Cont.	Color
LSP TMPRSS2 5' FISH Probe LSP ERG 3' FISH Probe	CytoGreen CytoOrange



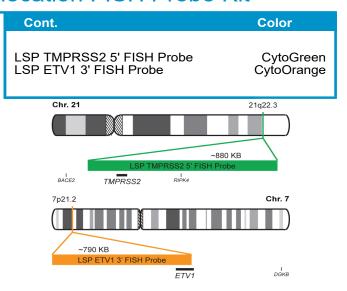
#### TMPRSS2-ETV1 Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC177-10-GO (100 μL)

# TMPRSS2-ETV1 Fusion/Translocation FISH Probe Kit

The TMPRSS2-ETV1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TMPRSS2 and ETV1 genes, located on chromosome bands 21q22.3 and 7p21.2, respectively. Rearrangements between the two genes have been observed in prostate cancer and other malignancies.





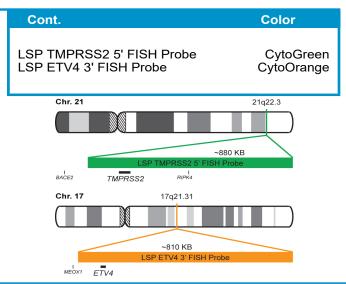




Cat. No. CT-PAC178-10-GO (100 µL)

## TMPRSS2-ETV4 Fusion/Translocation FISH Probe Kit

The TMPRSS2-ETV4 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TMPRSS2 and ETV4 genes, located on chromosome bands 21q22.3 and 17q21.31, respectively. Rearrangements between the two genes have been observed in prostate cancer and other malignancies.



## SMARCB1 Break Apart FISH Probe Kit



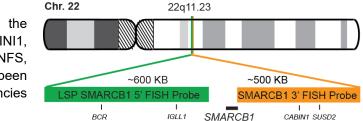
Cat. No. CT-PAC374-10-GO (100 μL)

# SMARCB1 Break Apart FISH Probe Kit

The SMARCB1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human SMARCB11 gene mapping to chromosome band 22q11.23. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other SMARCB1 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the SMARCB11 gene – also known as RDT, CSS3, INI1, SNF5, Snr1, BAF47, MRD15, RTPS1, Sfh1p, hSNFS, SNF5L1, SWNTS1 or PPP1R144 - have been observed in rhabdoid tumors and other malignancies and neoplastic predisposition syndromes.

Cont.	Color
LSP SMARCB1 5' FISH Probe	CytoGreen
LSP SMARCB1 3' FISH Probe	CytoOrange







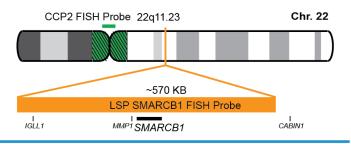


Cat. No. CT-PAC375-10-OG (100 µL)

## SMARCB1/CCP22 FISH Probe Kit

The SMARCB1/CCP22 FISH Probe Kit is designed to detect the human SMARCB1 gene located on chromosome band 22q11.23, along with the number of chromosome 22 copies per cell. Abnormalities in ATM – also known as RDT, CSS3, INI1, SNF5, Snr1, BAF47, MRD15, RTPS1, Sfh1p, hSNFS, SNF5L1, SWNTS1 or PPP1R144 - have been observed in rhabdoid tumors and other malignancies and neoplastic predisposition syndromes.

Cont.	Color
LSP SMARCB1 FISH Probe	CytoOrange
CCP22 (22q13) FISH Probe	CytoGreen



TMPRSS2-ERG Tri-color Fusion/Translocation FISH Probe Kit



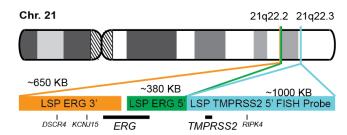
Cat. No. CT-PAC376-10-AGO (100 μL)

# TMPRSS2-ERG Tri-color Fusion / Translocation FISH Probe Kit

The TMPRSS2-ERG Tri-color Fusion/Translocation FISH Probe Kit is designed to detect rearrangements between the human TMPRSS2 and ERG genes, both located on the long arm of chromosome 21 (21q22.3 and 21q22.2, respectively).\*

Rearrangements between the two genes have been observed in prostate cancer and other malignancies.

Cont.	Color
LSP TMPRSS2 5' FISH Probe	CytoAqua
LSP ERG 5' FISH Probe	CytoGreen
LSP ERG 3' FISH Probe	CytoOrange







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# Leukemia

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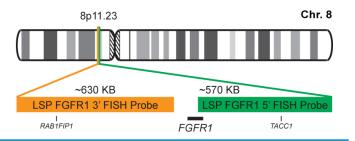


Cat. No. CT-PAC056-10-GO (100 μL)

# FGFR1 Break Apart FISH Probe Kit

The FGFR1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human FGFR1 gene located on chromosome band 8p11.23. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations FGFR1 such as deletions amplifications. Rearrangements and abnormal expression of the FGFR1 gene - also known as CEK, FLG, HH2, OGD, FLT2, KAL2, BFGFR, CD331, FGFBR, FLT-2, HBGFR, N-SAM, FGFR-1, HRTFDS or bFGF-R-1 – have been observed in a large number of hematological and solid tumor types, and other conditions.

Cont.	Color
LSP FGFR1 5' FISH Probe	CytoGreen
LSP FGFR1 3' FISH Probe	CytoOrange



#### MECOM/CCP3 FISH Probe Kit

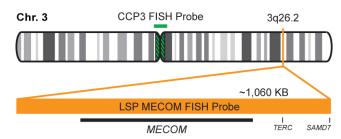


Cat. No. CT-PAC070-10-OG (100 µL)

# MECOM/CCP3 FISH Probe Kit

The MECOM/CCP3 FISH Probe Kit is designed to detect the human MECOM locus located on chromosome band 3q26.2, along with the number of chromosome 3 copies per cell. Rearrangements and abnormal expression of the MECOM gene – also known as EVI1, MDS1, PRDM3, MDS1-EVI1 or AML1-EVI-1 – have been observed in acute and chronic myelogenous leukemias, Myelodysplastic Syndrome (MDS) and other malignancies.

Cont.	Color
LSP MECOM FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen







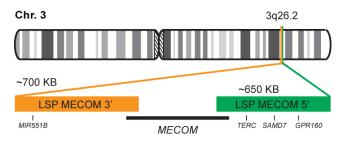


Cat. No. CT-PAC071-10-GO (100 µL)

# MECOM Break Apart FISH Probe Kit

The MECOM Break Apart FISH Probe Kit is designed to detect rearrangements in the human MECOM locus located on chromosome band 3g26.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MECOM aberrations such deletions as Rearrangements amplifications. and abnormal expression of the MECOM gene - also known as EVI1, MDS1, PRDM3, MDS1-EVI1 or AML1-EVI-1 observed in acute and myelogenous leukemias, Myelodysplastic Syndrome (MDS) and other malignancies.

Cont.	Color
LSP MECOM 5' FISH Probe	CytoGreen
LSP MECOM 3' FISH Probe	CytoOrange



# RARA Break Apart FISH Probe Kit

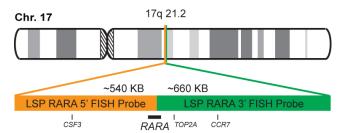


Cat. No. CT-PAC093-10-OG (100 µL)

# RARA Break Apart FISH Probe Kit

The RARA Break Apart FISH Probe Kit is designed to detect rearrangements in the human RARA gene located on chromosome band 17q21.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other RARA aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the RARA gene – also known as RAR or NR1B1 – have been observed in several acute promyelocytic leukemia types and other malignancies.

Cont.	Color
LSP RARA 5' FISH Probe	CytoOrange
LSP RARA 3' FISH Probe	CytoGreen







#### TCL1A Break Apart FISH Probe Kit

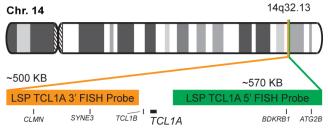


Cat. No. CT-PAC096-10-GO (100 μL)

# TCL1A Break Apart FISH Probe Kit

The TCL1A Break Apart FISH Probe Kit is designed to detect rearrangements in the human TCL1A gene located on chromosome band 14q32.13. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TCL1A aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TCL1A gene – also known as TCL1 – have been observed in T-cell leukemias and other malignancies.

Cont.	Color
LSP TCL1A 5' FISH Probe	CytoGreen
LSP TCL1A 3' FISH Probe	CytoOrange



#### TP53/ATM FISH Probe Kit



Cat. No. CT-PAC106-10-OG (100 μL)

# TP53/ATM FISH Probe Kit

The TP53/ATM FISH Probe Kit is designed to detect rearrangements involving the human TP53 and ATM genes, located on chromosome bands 17p13.1 and 11q22.3, respectively. Abnormalities in both genes, the TP53 gene – also known as P53, BCC7, LFS1 or TRP53 – and the ATM gene – also called AT1, ATA, ATC, ATD, ATE, ATDC, TEL1 or TELO1, have been reported in a number of leukemia types and other malignancies.

Cont.	Color
LSP TP53 FISH Probe LSP ATM FISH Probe	CytoOrange CytoGreen
17p13.1	Chr. 17
~560 KB LSP TP53 FISH Probe	
POLRZA TP53 DNAH2	
Chr. 11 11q	22.3
~550 K	В
ACAT1 ATM CUL5	I EXPH5





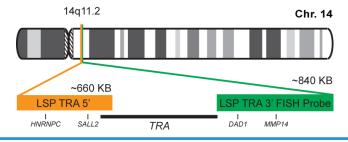


Cat. No. CT-PAC107-10-OG (100 µL)

# TRA Break Apart FISH Probe Kit

The TRA Break Apart FISH Probe Kit is designed to detect rearrangements in the human T cell receptor alpha (TRA) locus located on chromosome band 14q11.2. In addition to revealing breaks, which can lead to translocation of parts of the locus, inversion, or its fusion to other genes, the probe set can also be used to identify other TRA aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TRA locus – also known as IMD7, TCRA, TCRD, TRA@ or TRAC – have been observed in a number of adult and pediatric T-cell leukemias and other malignancies.

Cont.	Color
LSP TRA 5' FISH Probe	CytoOrange
LSP TRA 3' FISH Probe	CytoGreen



#### MNX1-ETV6 Dual Fusion/Traslocation FISH Probe Kit



Cat. No. CT-PAC108-10-GO (100 μL)

# MNX1-ETV6 Dual Fusion/Traslocation FISH Probe Kit

The MNX1-ETV6 Dual Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human MNX1 and ETV6 genes, located on chromosome bands 7q36.3 and 15q25.3, respectively.

MNX1 is also known as HB9, HLXB9, SCRA1 or HOXHB9. ETV6 is also known as TEL, THC5 or TEL/ABL. Rearrangements involving portions of these two genes have been observed in acute myeloid leukemia (AML) and many other predominantly myeloproliferative neoplasms.

Cont.	Color
LSP MNX1 5'-3' FISH Probe LSP ETV6 5'-3' FISH Probe	CytoGreen CytoOrange
Chr. 7	7q36.3
~540 KB	~530 KB
LSP MNX1 3' FISH Probe	LSP MNX1 5' FISH Probe
RNF32 MNX	(1 DNAJB6
12p13.2	Chr. 12
~620 KB	~890 KB
LSP ETV6 5' FISH Probe	LSP ETV6 3' FISH Probe
ETV6	BCL2L14 LRP6



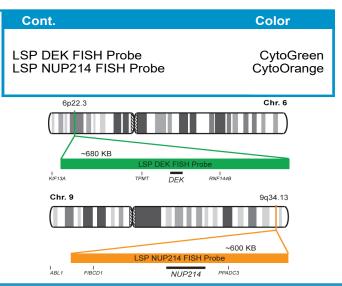




Cat. No. CT-PAC109-10-GO (100 µL)

#### DEK-NUP214 Dual Fusion/Translocation FISH Probe Kit

The DEK-NUP214 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human DEK and NUP214 genes located on chromosome bands 6p22.3 and 9q34.13, respectively. Rearrangements involving portions of these two genes, the DEK gene – also known as D6S231E – and the NUP214 gene – also called CAN, CAIN, or D9S46E, have been observed in acute myeloid leukemia (AML), myelodysplastic syndrome (MDS) and many other hematological malignancies.



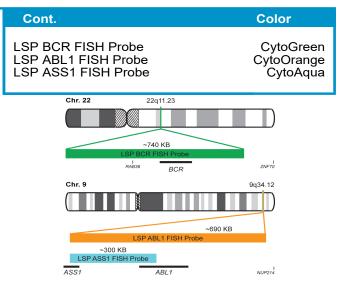
BCR-ABL1/ASS1 Tri-color Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC110-10-GOA (100 μL)

# BCR-ABL1/ASS1 Tri-color Fusion/Translocation FISH Probe Kit

The BCR-ABL1/ASS1 Tri-color Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human BCR, ABL1 and ASS1 genes located on chromosome bands 22q11.23, 9q34.12 and 9q34.11, respectively. A reciprocal translocation between the two regions is present in virtually all cases of chronic myelocytic leukemia (CML), but also occurs in a subset of pediatric and adult acute lymphocytic leukemias (ALL), acute myelogenous leukemia (AML) and other malignancies.







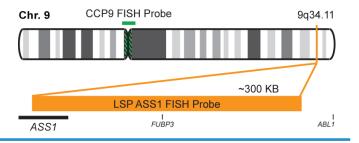


Cat. No. CT-PAC111-10-OG (100 µL)

#### ASS1/CCP9 FISH Probe Kit

The ASS1/CCP9 FISH Probe Kit is designed to detect the human ASS1 gene located on chromosome band 9q34.11, along with the number of chromosome 9 copies per cell. Abnormalities in ASS1 – also called ASS or CTLN1 – occur in citrullinemia type I (CTLN1), also known as classic citrullinemia.

Cont.	Color
LSP ASS1 FISH Probe	CytoOrange
CCP9 (Pericentromeric) FISH Probe	CytoGreen



## ABL1 Break Apart FISH Probe Kit

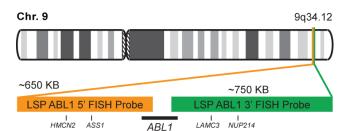


Cat. No. CT-PAC115-10-OG (100 µL)

# ABL1 Break Apart FISH Probe Kit

The ABL1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human ABL1 gene located on chromosome band 9q34.12. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ABL1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ABL1 gene – also known as v-abl, p150, c-ABL1, c-ABL, bcr/abl, JTK7 or ABL - have been observed in acute lymphoblastic leukemia (ALL), chronic leukemia myeloid myelogenous (CML), acute leukemia (AML) and other malignancies.

Cont.	Color
LSP ABL1 5' FISH Probe	CytoOrange
LSP ABL1 3' FISH Probe	CytoGreen







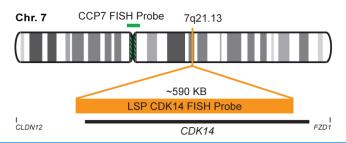


Cat. No. CT-PAC124-10-OG (100 µL)

## CDK14/CCP7 FISH Probe Kit

The CDK14/CCP7 FISH Probe Kit is designed to detect the human CDK14 gene located on chromosome bands 7q21.13, along with the number of chromosome 7 copies per cell. Abnormalities (typically chromosome 7 q-arm deletions) in CDK14 – also known as PFTK1 or PFTAIRE1 – occur in malignant myeloid diseases (ex. CML, AML, etc.) and other malignancies.

Cont.	Color
LSP CDK14 FISH Probe	CytoOrange
CCP7 FISH Probe	CytoGreen



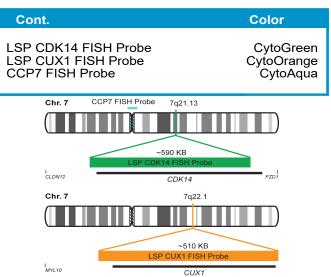
#### CDK14/CUX1/CCP7 FISH Probe Kit



Cat. No. CT-PAC125-10-GOA (100 μL)

## CDK14/CUX1/CCP7 FISH Probe Kit

The CDK14/CUX1/CCP7 FISH Probe Kit is designed to detect the human CDK14 and CUX1 genes located on chromosome bands 7q21.13 and 7q22.1, respectively, along with the number of chromosome 7 copies per cell. Abnormalities (typically chromosome 7 q-arm deletions) in CDK14 – also known as PFTK1 or PFTAIRE1 – and CUX1 – also called p75, p200, p110, Nbla10317, GOLIM6, FLJ31745, Cux/CDP, Clox, CUX, CUTL1, COY1, CDP1, CDP/Cut, CDP, or CASP – occur in malignant myeloid diseases (ex. CML, AML, etc.) and other malignancies.







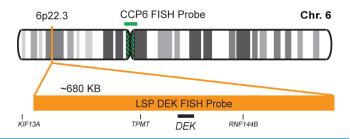


Cat. No. CT-PAC129-10-OG (100 µL)

#### DEK/CCP6 FISH Probe Kit

The DEK/CCP6 FISH Probe Kit is designed to detect the human DEK gene located on chromosome band 6p22.3, along with the number of chromosome 6 copies per cell. Abnormalities in DEK – also known as D6S231E – have been found in acute myeloid leukemia (AML), myelodysplastic syndrome (MDS) and many other hematological malignancies.

Cont.	Color
LSP DEK FISH Probe	CytoOrange
CCP6 FISH Probe	CytoGreen



#### KMT2A/CCP11 FISH Probe Kit

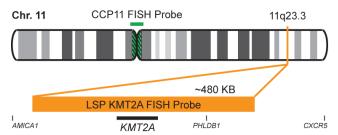


Cat. No. CT-PAC137-10-OG (100 µL)

# KMT2A/CCP11 FISH Probe Kit

The KMT2A/CCP11 FISH Probe Kit is designed to detect the human KMT2A gene located on chromosome band 11q23.3, along with the number of chromosome 11 copies per cell. Abnormal expression of the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL-1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – have been observed in a large number of acute leukemias and other malignancies.

Cont.	Color
LSP KMT2A FISH Probe	CytoOrange
CCP11 FISH Probe	CytoGreen







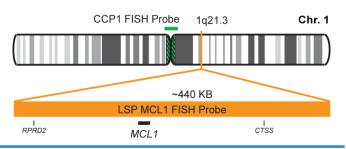


Cat. No. CT-PAC140-10-OG (100 μL)

#### MCL1/CCP1 FISH Probe Kit

The MCL1/CCP1 FISH Probe Kit is designed to detect the human MCL1 gene located on chromosome band 1q21.3, along with the number of chromosome 1 copies per cell. Abnormal expression or rearrangements of the MCL1 gene – also known as mcl1/EAT, bcl2-L-3, TM, Mcl-1, MCL1S, MCL1L, MCL1-ES, EAT or BCL2L3 – have been observed in chronic myelogenous leukemia (CML), multiple myeloma (MM), B-cell non-Hodgkin's lymphomas and other malignancies.

Cont.	Color
LSP MCL1 FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen



#### PTPRT/CCP20 FISH Probe Kit

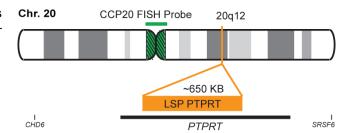


Cat. No. CT-PAC148-10-OG (100 µL)

# PTPRT/CCP20 FISH Probe Kit

The PTPRT/CCP20 FISH Probe Kit is designed to detect the human PTPRT gene located on chromosome band 20q12, along with the number of chromosome 20 copies per cell. Normal function of the PTPRT gene product - also called RPTPrho, PTPrho or PTP $\rho$  – is frequently lost in human colon cancers. The gene likely serves as a tumor suppressor gene in colorectal, lung, skin and stomach cancers. The locus is also deleted in some acute leukemias and other myeloproliferative disorders.

Cont.	Color
LSP PTPRT FISH Probe	CytoOrange
CCP20 FISH Probe	CytoGreen







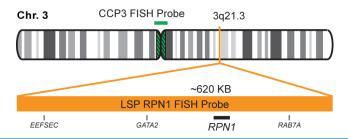


Cat. No. CT-PAC149-10-OG (100 µL)

#### RPN1/CCP3 FISH Probe Kit

The RPN1/CCP3 FISH Probe Kit is designed to detect the human RPN1 gene located on chromosome band 3q21.3, along with the number of chromosome 3 copies per cell. Abnormalities in RPN1 – also known as RBPH1 or OST1 – have been observed in acute myeloid leukemias (AML), prostate tumors and other malignancies.

Cont.	Color
LSP RPN1 FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen



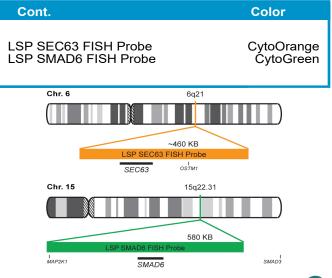
#### SEC63/SMAD6 FISH Probe Kit



Cat. No. CT-PAC155-10-OG (100 µL)

# SEC63/SMAD6 FISH Probe Kit

The SEC63/SMAD6 FISH Probe Kit is designed to detect the human SEC63 gene located on chromosome band 6q21, and the SMAD6 gene on chromosome band 15q22.31. Abnormal expression of the SEC63 gene – also known as ERdj2, SEC63L, DNAJC23 or PRO2507 – has been observed in lymphoid malignancies such as chronic lympocytic leukemia (CLL) and other cancers. Abnormalities in SMAD6 – also known as AOVD2, MADH6, MADH7 or HsT17432 – are associated with cardiac valve defects and developmental deficiencies. SMAD6 expression has been reported to promote cell survival in lung cancer and other tumor types.







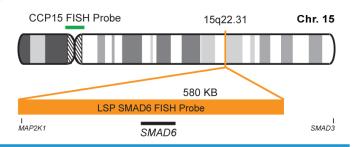


Cat. No. CT-PAC156-10-OG (100 μL)

# SMAD6/CCP15 FISH Probe Kit

The SMAD6/CCP15 FISH Probe Kit is designed to detect the human SMAD6 gene located on chromosome bands 15q22.31, along with the number of chromosome 15 copies per cell. Abnormalities in SMAD6 – also known as MADH7, MADH6, HsT17432, or AOVD2 – are associated with cardiac valve defects, developmental deficiencies, lung neoplasms and other malignancies.

Cont.	Color
LSP SMAD6 FISH Probe	CytoOrange
CCP15 FISH Probe	CytoGreen



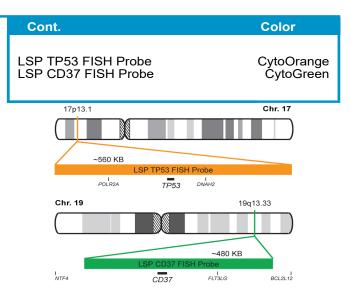
#### TP53/CD37 FISH Probe Kit



Cat. No. CT-PAC157-10-OG (100 µL)

## TP53/CD37 FISH Probe Kit

The TP53/CD37 FISH Probe Kit is designed to detect rearrangements involving the human TP53 and CD37 genes located on chromosome bands 17p13.1 and 19q13.33, respectively. Abnormal expression of the TP53 gene – also known as P53, BCC7, LFS1 or TRP53 – has been observed in a large number of tumor types and some other conditions. The CD37 gene – also called GP52-40 or TSPAN26 – is upregulated in Burkitt's lymphoma and other B-cell malignancies, and expressed in a number of solid tumor types as well.





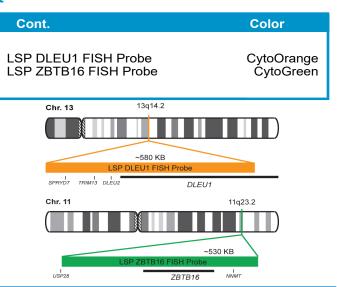




Cat. No. CT-PAC161-10-OG (100 µL)

#### DLEU1/ZBTB16 FISH Probe Kit

The DLEU1/ZBTB16 FISH Probe Kit is designed to detect the human DLEU1 gene, located on chromosome band 13q14.2, and the ZBTB16 gene on chromosome band 11q23.2. Rearrangements and abnormal expression of the DLEU1 gene region - also known as BCMS, DLB1, LEU1, LEU2, XTP6, BCMS1, DLEU2, LINC00021 or NCRNA00021 - have been observed in B-cell chronic lymphocytic leukemia (CLL), multiple myeloma (MM) malignancies. Fusions and aberrant expression of the ZBTB16 gene - also known as PLZF or ZNF145 have been reported in acute promyelocytic leukemia and other neoplasias.



#### CCP7/CCP8 FISH Probe Kit

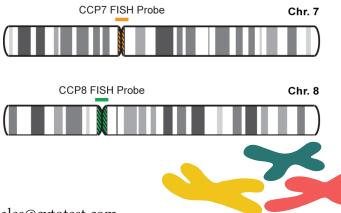


Cat. No. CT-PAC164-10-OG (100 µL)

## CCP7/CCP8 FISH Probe Kit

The CCP7/CCP8 FISH Probe Kit is designed to detect the human chromosome 7 and 8. Aneusomies of chromosomes 7 and 8 have been reported in breast, gastric and other tumors, and in chronic and acute leukemias and other hematological disorders, respectively.

Cont.	Color
CCP7 FISH Probe	CytoOrange
CCP8 FISH Probe	CytoGreen



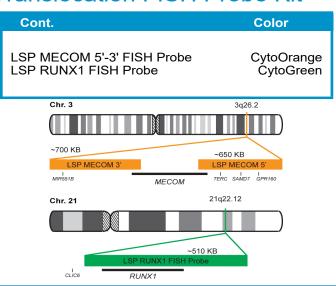




Cat. No. CT-PAC170-10-OG (100 µL)

## MECOM-RUNX1 Dual Fusion/Translocation FISH Probe Kit

The MECOM-RUNX1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human MECOM and RUNX1 genes located on chromosome bands 3q26.2 and 21q22.12, respectively. Fusion of MECOM – also known as EVI1, MDS1, PRDM3, MDS1-EVI1 or AML1-EVI-1 – with the RUNX1 gene – also known as AML1, AML1-EVI-1, AMLCR1, CBFA2, EVI-1 or PEBP2aB – has been observed in chronic myelogenous leukemia (CML), myelodysplastic syndrome (MDS), acute myeloid leukemia (AML) and other malignancies.



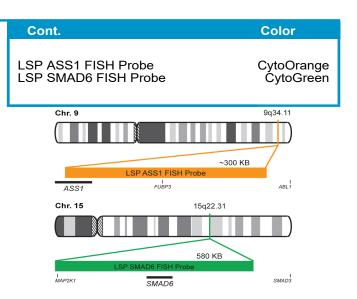
#### ASS1/SMAD6 FISH Probe Kit



Cat. No. CT-PAC171-10-OG (100 µL)

# ASS1/SMAD6 FISH Probe Kit

The ASS1/SMAD6 FISH Probe Kit is designed to detect the human ASS1 gene located on chromosome band 9q34.11, and the SMAD6 gene on chromosome band 15g22.31. Abnormal expression of the ASS1 gene - also called ASS or CTLN1 - occur in citrullinemia type I (CTLN1), also known as classic citrullinemia. Abnormalities in SMAD6 - also known as AOVD2, MADH6, MADH7 or HsT17432 - are associated with cardiac valve defects developmental deficiencies. SMAD6 expression has been reported to promote cell survival in lung cancer and other tumor types.







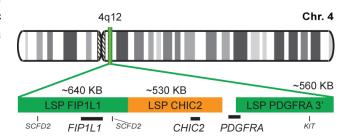


Cat. No. CT-PAC172-10-GO (100 µL)

### FIP1L1/CHIC2 FISH Probe Kit

The FIP1L1/CHIC2 FISH Probe Kit is designed to detect rearrangements in a region involving the human FIP1L1 and CHIC2 genes located on chromosome band 4q12. Rearrangements around the FIP1L1 gene region with an interstitial deletion at the CHIC2 gene region have been observed in diverse eosinophilia-associated hematologic disorders like hyperseosinophilic syndrome (HES), systemic mastocytosis (SM) and chronic eosinophilic leukemia (CEL).

Cont.	Color
LSP FIP1L1 FISH Probe	CytoGreen
LSP CHIC2 FISH Probe	CytoOrange



#### FIP1L1-CHIC2-PDGFRA Tri-color FISH Probe Kit

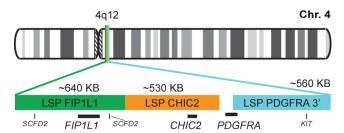


Cat. No. CT-PAC173-10-GOA (100 μL)

### FIP1L1-CHIC2-PDGFRA Tri-color FISH Probe Kit

The FIP1L1-CHIC2-PDGFRA Tri-color FISH Probe Kit is designed to detect rearrangements involving the human FIP1L1, CHIC2 and PDGFRA genes located on chromosome band 4q12. Rearrangements between the FIP1L1 and PDGFRA genes with an interstitial deletion at the CHIC2 gene region have been observed in diverse eosinophilia-associated hematologic disorders like hyperseosinophilic syndrome (HES), systemic mastocytosis (SM) and chronic eosinophilic leukemia (CEL).

Cont.	Color
LSP FIP1L1 FISH Probe	CytoGreen
LSP CHIC2 FISH Probe	CytoOrange
LSP PDGFRA 3' FISH Probe	CytoAqua







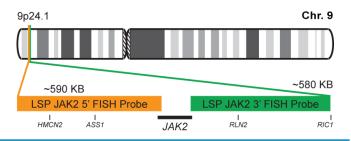


Cat. No. CT-PAC174-10-OG (100 μL)

### JAK2 Break Apart FISH Probe Kit

The JAK2 Break Apart FISH Probe Kit is designed to detect rearrangements in the human JAK2 gene located on chromosome band 9p24.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other JAK2 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the JAK2 gene – also known as THCYT3 or JTK10 – have been observed in acute myeloid and lymphoid leukemias and other malignancies.

Cont.	Color
LSP JAK2 5' FISH Probe	CytoOrange
LSP JAK2 3' FISH Probe	CytoGreen



#### TP53/MPO FISH Probe Kit

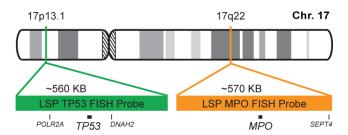


Cat. No. CT-PAC175-10-GO (100 µL)

# TP53/MPO FISH Probe Kit

The TP53/MPO FISH Probe Kit is designed to detect rearrangements involving the human TP53 and MPO genes, located on chromosome bands 17p13.1 and 17q22, respectively. Abnormalities in both genes, the TP53 gene – also known as P53, BCC7, LFS1 or TRP53 – and the MPO gene, have been reported in a number of leukemia types and other malignancies.

Cont.	Color
LSP TP53 FISH Probe	CytoGreen
LSP MPO FISH Probe	CytoOrange







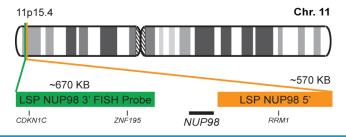


Cat. No. CT-PAC180-10-OG (100 µL)

# NUP98 Break Apart FISH Probe Kit

The NUP98 Break Apart FISH Probe Kit is designed to detect rearrangements in the human NUP98 gene located on chromosome band 11p15.4. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations such as deletions amplifications. Rearrangements and abnormal expression of the NUP98 gene - also known as NUP96, NUP196 or ADIR2 - have been observed in acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), myelodysplasic syndrome (MDS) and other malignancies.

Cont.	Color
LSP NUP98 5' FISH Probe	CytoOrange
LSP NUP98 3' FISH Probe	CytoGreen



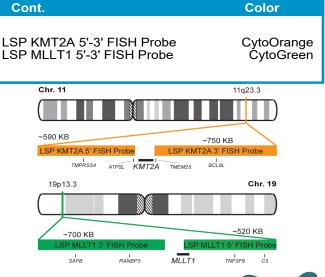
#### KMT2A-MLLT1 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC182-10-OG (100 µL)

### KMT2A-MLLT1 Dual Fusion/Translocation FISH Probe Kit

The KMT2A-MLLT1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KMT2A and MLLT1 genes located on chromosome bands 11q23.3 and 19p13.3, respectively. Rearrangements between the two genes, the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL-1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – and the MLLT1 gene – also called ENL, LTG19 or YEATS1, have been observed in acute myeloid leukemia (AML), acute lymphoblastic leukemia (ALL) and other malignancies.





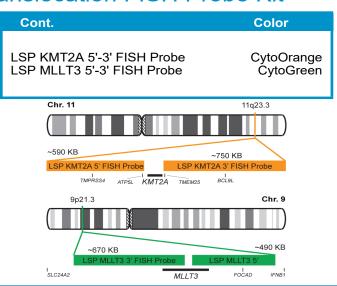




Cat. No. CT-PAC183-10-OG (100 µL)

#### KMT2A-MLLT3 Dual Fusion/Translocation FISH Probe Kit

The KMT2A-MLLT3 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KMT2A and MLLT3 genes located on chromosome bands 11q23.3 and 9p21.3, respectively. Rearrangements between the two genes, the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL –1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – and the MLLT3 gene – also called AF9 or YEATS3, have been observed in acute myeloid leukemia (AML) and other malignancies.



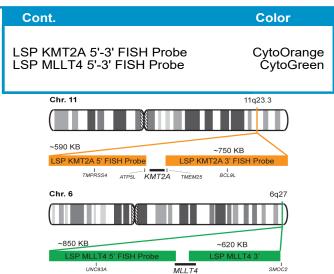
KMT2A-MLLT4 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC184-10-OG (100 μL)

# KMT2A-MLLT4 Dual Fusion/Translocation FISH Probe Kit

The KMT2A-MLLT4 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KMT2A and MLLT4 genes located on chromosome bands 11q23.3 and 6q27, respectively. Rearrangements between the two genes, the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL -1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – and the MLLT4 gene – also called AF6 or MLL-AF6, have been observed in acute myeloid leukemia (AML) and other malignancies.







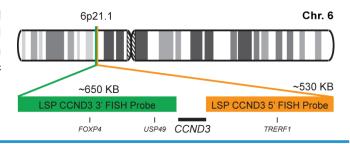


Cat. No. CT-PAC187-10-OG (100 µL)

# **CCND3** Break Apart FISH Probe Kit

The CCND3 Break Apart FISH Probe Kit is designed to detect rearrangements in the human CCND3 gene located on chromosome band 6p21.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations deletions CCND3 such as amplifications. Rearrangements and abnormal expression of the CCND3 gene have been observed in several types of hematological malignancies such as multiple myeloma (MM), chronic lymphocytic leukemia (CLL), acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML) and others.

Cont.	Color
LSP CCND3 5' FISH Probe	CytoOrange
LSP CCND3 3' FISH Probe	CytoGreen



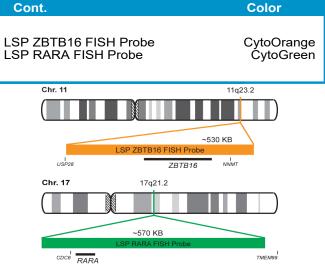
#### ZBTB16-RARA Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC192-10-OG (100 µL)

# ZBTB16-RARA Dual Fusion/Translocation FISH Probe Kit

The ZBTB16-RARA Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human ZBTB16 and RARA genes located on chromosome bands 11q23.3 and 17q21.2, respectively. Rearrangements between the two genes, the ZBTB16 gene – also known as PLZF or ZNF145 – and the RARA gene – also called RAR or NR1B1, have been observed in acute promyelocytic leukemia (APL, the M3 subtype of acute myelogenous leukemia) and other malignancies.







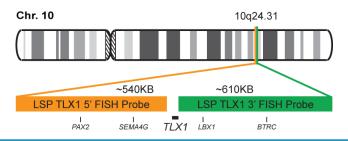


Cat. No. CT-PAC194-10-OG  $(100 \mu L)$ 

# TLX1 Break Apart FISH Probe Kit

The TLX1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human TLX1 gene located on chromosome band 10g24.31. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TLX1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TLX1 gene - also known as TCL3 or HOX11 - have been observed in acute lymphoblastic leukemia (ALL), non-Hodgkin lymphoma (NHL) and other malignancies.

Cont.	Color
LSP TLX1 5' FISH Probe	CytoOrange
LSP TLX1 3' FISH Probe	CytoGreen



#### ZBTB16/CCP11 FISH Probe Kit

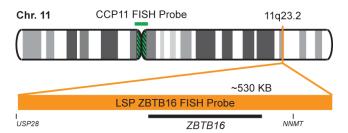


Cat. No. CT-PAC196-10-OG  $(100 \mu L)$ 

### ZBTB16/CCP11 FISH Probe Kit

The ZBTB16/CCP11 FISH Probe Kit is designed to detect the human ZBTB16 gene located on chromosome band 11q23.2, along with the number of chromosome 11 copies per cell. Rearrangements and abnormal expression of the ZBTB16 gene - also known as PLZF or ZNF145 - have been reported in acute promyelocytic leukemia and other neoplasias.

Cont.	Color
LSP ZBTB16 FISH Probe	CytoOrange
CCP11 FISH Probe	CytoGreen







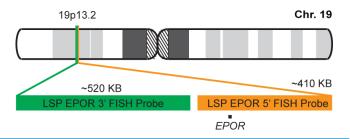


Cat. No. CT-PAC203-10-OG (100 µL)

# **EPOR Break Apart FISH Probe Kit**

The EPOR Break Apart FISH Probe Kit is designed to detect rearrangements in the human EPOR gene located on chromosome band 19p13.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other EPOR aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the EPOR gene – also known as EPO-R – have been observed in B-cell acute lymphoblastic leukemia (B-ALL).

Cont.	Color
LSP EPOR 5' FISH Probe	CytoOrange
LSP EPOR 3' FISH Probe	CytoGreen



### TCF3 Break Apart FISH Probe Kit

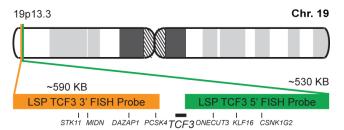


Cat. No. CT-PAC204-10-GO (100 µL)

### TCF3 Break Apart FISH Probe Kit

The TCF3 Break Apart FISH Probe Kit is designed to detect rearrangements in the human TCF3 gene located on chromosome band 19p13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TCF3 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TCF3 gene – also known as E2A, E47, ITF1, VDIR, TCF-3 or bHLHb21 – have been observed in adult and pediatric B-cell leukemias and other tumor types.

Cont.	Color
LSP TCF3 5' FISH Probe	CytoGreen
LSP TCF3 3' FISH Probe	CytoOrange







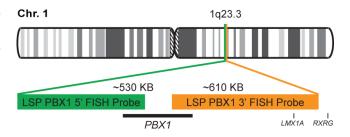


Cat. No. CT-PAC205-10-GO (100 µL)

# PBX1 Break Apart FISH Probe Kit

The PBX1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human PBX1 gene located on chromosome band 1q23.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other PBX1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the PBX1 gene – also known as PRL – have been observed in B-cell acute lymphoblastic leukemias (B-ALL) and other tumor types.

Cont.	Color
LSP PBX1 5' FISH Probe	CytoGreen
LSP PBX1 3' FISH Probe	CytoOrange



#### MYC Break Apart FISH Probe Kit

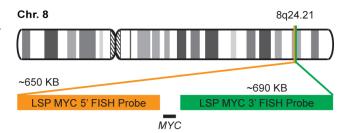


Cat. No. CT-PAC208-10-OG (100 µL)

# MYC Break Apart FISH Probe Kit

The MYC Break Apart FISH Probe Kit is designed to detect rearrangements in the human MYC gene located on chromosome band 8q24.21. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MYC aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the MYC gene – also known as MRTL, MYCC, c-Myc or bHLHe39 – have been observed in Burkitt's Lymphoma and other hematological malignancies, myeloma, as well as breast, cervical, colon, ovarian and other tumor types.

Cont.	Color
LSP MYC 5' FISH Probe	CytoOrange
LSP MYC 3' FISH Probe	CytoGreen







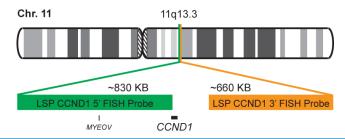


Cat. No. CT-PAC209-10-GO (100 μL)

# **CCND1** Break Apart FISH Probe Kit

The CCND1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human CCND1 gene located on chromosome band 11q13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other CCND1 aberrations such as deletions amplifications. Rearrangements and abnormal expression of the CCND1 gene - also known as BCL1, PRAD1, U21B31 or D11S287E - have been observed several types of hematological malignancies.

Cont.	Color
LSP CCND1 5' FISH Probe	CytoGreen
LSP CCND1 3' FISH Probe	CytoOrange



### MYH11 Break Apart FISH Probe Kit

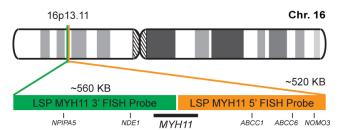


Cat. No. CT-PAC211-10-OG (100 μL)

### MYH11 Break Apart FISH Probe Kit

The MYH11 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MYH11 gene located on chromosome band 16p13.11. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MYH11 aberrations such as deletions amplifications. Rearrangements and abnormal expression of the MYH11 gene - also known as AAT4, FAA4, SMHC or SMMHC - have been observed in acute non-lymphocytic leukemias and other malignancies.

Cont.	Color
LSP MYH11 5' FISH Probe	CytoOrange
LSP MYH11 3' FISH Probe	CytoGreen







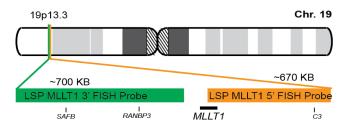
### MLLT1 Break Apart FISH Probe Kit

The MLLT1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MLLT1 gene mapping to chromosome band 19p13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MLLT1 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the MLLT1 gene – also known as ENL, LTG19 or YEATS1 - have been observed in acute leukemias and other tumor types.

Cont.	Color
LSP MLLT1 5' FISH Probe	CytoOrange
LSP MLLT1 3' FISH Probe	CytoGreen

Cat. No. CT-PAC215-10-OG



### MLLT4 Break Apart FISH Probe Kit



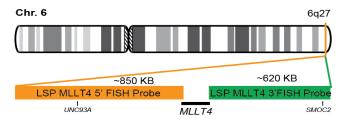
Cat. No. CT-PAC217-10-OG (100 μL)

### MLLT4 Break Apart FISH Probe Kit

The MLLT4 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MLLT4 gene mapping to chromosome band 6q27. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MLLT4 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the MLLT4 gene – also known as AF6, AFDN, MLL-AF6 or I-afadin - have been observed in acute myeloid leukemia (AML) and other tumor types.

Cont.	Color
LSP MLLT4 5' FISH Probe	CytoOrange
LSP MLLT4 3' FISH Probe	CytoGreen





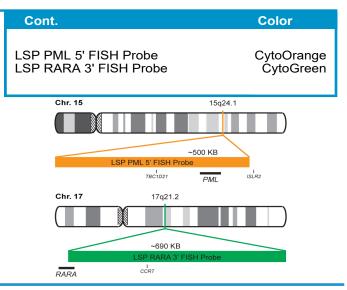




Cat. No. CT-PAC219-10-OG (100 µL)

### PML-RARA Fusion/Translocation FISH Probe Kit

The PML-RARA Single Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human PML and RARA genes, located on chromosome bands 15q24.1 and 17q21.2, respectively. Rearrangements between the two genes have been observed in acute promyelocytic leukemia and other malignancies.



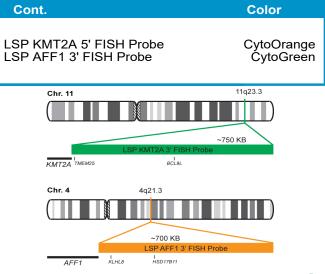
### KMT2A-AFF1 Single Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC220-10-OG (100 µL)

### KMT2A-AFF1 Single Fusion/Translocation FISH Probe Kit

The KMT2A-AFF1 Single Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KMT2A and AFF1 genes located on chromosome bands 11q23.3 and 4q21.3, respectively. Rearrangements between the two genes, the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL-1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – and the AFF1 gene – also called AF4, PBM1 or MLLT2, have been observed in acute leukemias and other malignancies.







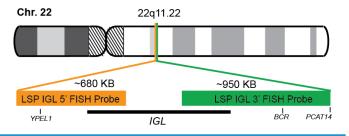


Cat. No. CT-PAC229-10-OG (100 µL)

### IGL Break Apart FISH Probe Kit

The IGL Break Apart FISH Probe Kit is designed to detect rearrangements in the human IGL locus mapping to chromosome band 22q11.22. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other IGL aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the IGL gene – also known as IGL@ or IGLC6 - have been observed in various B-cell lymphoma subtypes and other malignancies.

Cont.	Color
LSP IGL 5' FISH Probe	CytoOrange
LSP IGL 3' FISH Probe	CytoGreen



### IGK Break Apart FISH Probe Kit

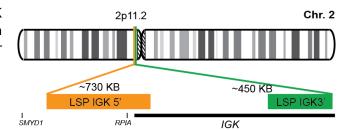


Cat. No. CT-PAC230-10-OG (100 µL)

### IGK Break Apart FISH Probe Kit

The IGK Break Apart FISH Probe Kit is designed to detect rearrangements in the human IGK locus mapping to chromosome band 2p11.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other IGK aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the IGK gene – also known as IGK@ - have been observed in various B-cell lymphoma subtypes and other malignancies.

Cont.	Color
LSP IGK 5' FISH Probe	CytoOrange
LSP IGK 3' FISH Probe	CytoGreen







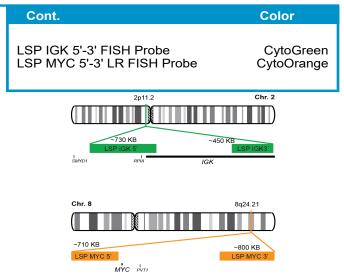


Cat. No. CT-PAC231-10-GO (100 µL)

### IGK-MYC Dual Fusion/Translocation LR FISH Probe Kit

The IGK-MYC Dual Fusion/Translocation LR (long-range) FISH Probe Kit is designed to detect rearrangements involving the human IGK and MYC genes, located on chromosome bands 2p11.2 and 8q24.21, respectively.

IGK is also known as IGK@. MYC is also known as MRTL, MYCC, c-Myc or bHLHe39. Rearrangements involving portions of these two genes have been observed in several B-cell lymphoma subtypes, especially Burkitt lymphoma, and other malignancies.



#### IGL-MYC Dual Fusion/Translocation LR FISH Probe Kit

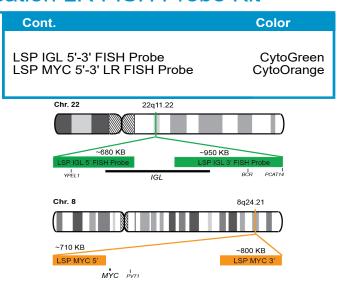


Cat. No. CT-PAC232-10-GO (100 µL)

# IGL-MYC Dual Fusion/Translocation LR FISH Probe Kit

The IGL-MYC Dual Fusion/Translocation LR (long-range) FISH Probe Kit is designed to detect rearrangements involving the human IGL and MYC genes, located on chromosome bands 22q11.22 and 8q24.21, respectively.

IGL is also known as IGL@ or IGLC6. MYC is also known as MRTL, MYCC, c-Myc or bHLHe39. Rearrangements involving portions of these two genes have been observed in several B-cell lymphoma subtypes, especially Burkitt lymphoma, and other malignancies.





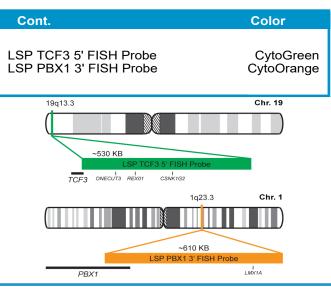




Cat. No. CT-PAC234-10-GO (100 µL)

#### TCF3-PBX1 Fusion/Translocation FISH Probe Kit

The TCF3-PBX1 Single Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TCF3 and PBX1 genes located on chromosome bands 19p13.3 and 1q23.3, respectively. Rearrangements between the two genes, the TCF3 gene – also known as E2A, E47, ITF1, VDIR, TCF-3 or bHLHb21, have been observed in B-cell acute lymphoblastic leukemias (B-ALL) and other tumor types.



#### MYH11/CCP16 FISH Probe Kit

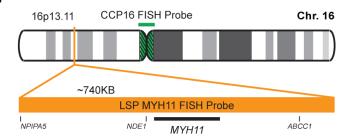


Cat. No. CT-PAC254-10-OG (100 µL)

### MYH11/CCP16 FISH Probe Kit

The MYH11/CCP16 FISH Probe Kit is designed to detect the human MYH11 gene located on chromosome band 16p13.11 along with the number of chromosome 16 copies per cell. Rearrangements and abnormal expression of the MYH11 gene — also known as AAT4, FAA4, SMHC or SMMHC — have been observed in acute non-lymphocytic leukemias and other malignancies.

Cont.	Color
LSP MYH11 FISH Probe	CytoOrange
CCP16 (Pericentromeric) FISH Probe	CytoGreen





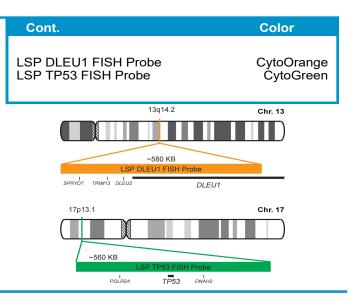




Cat. No. CT-PAC255-10-OG (100 µL)

#### DLEU1/TP53 FISH Probe Kit

The DLEU1/TP53 FISH Probe Kit is designed to detect the human DLEU1 and TP53 genes located on chromosome bands 13q14.2 and 17p13.1, respectively. Rearrangements and abnormal expression of the DLEU1 gene region – also known as BCMS, DLB1, LEU1, LEU2, XTP6, BCMS1, DLEU2, LINC00021 or NCRNA00021 - and the TP53 gene also known as P53, BCC7, LFS1 or TRP53 - have been observed in B-cell chronic lymphocytic leukemia (CLL) and other malignancies.



#### IGH/CCP14 FISH Probe Kit



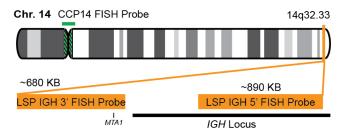
Cat. No. CT-PAC279-10-OG (100 μL)

# IGH/CCP14 FISH Probe Kit

The IGH/CCP14 FISH Probe Kit is designed to detect the human IGH gene located on chromosome band 14q32.33, along with the number of chromosome 14 copies per cell.

Abnormal expression, mutations or rearrangements of the IGH gene – also known as IGD1, IGH@, IGHJ, IGHV, IGHD@, IGHJ@, IGHV@, IGH.1@ or IGHDY1 - has been observed in many acute and chronic hematological malignancies.

Cont.	Color
LSP IGH 5'-3' FISH Prob CCP14 (Pericentromeric	





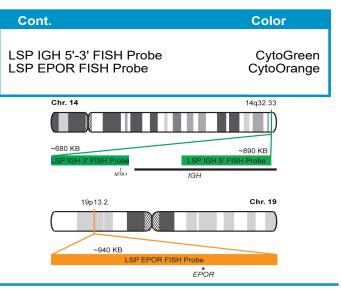




Cat. No. CT-PAC301-10-GO (100 μL)

#### IGH-EPOR Dual Fusion/Translocation FISH Probe Kit

The IGH-EPOR Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and EPOR gene, located on chromosome bands 14q32.33 and 19p13.2, respectively. Rearrangements between the two regions have been observed in B-cell acute lymphoblastic leukemia (B-ALL).



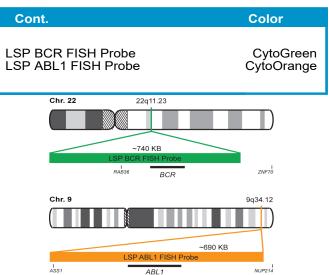
#### BCR-ABL1 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC302-10-GO (100 μL)

### BCR-ABL1 Dual Fusion/Translocation FISH Probe Kit

The BCR-ABL1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human BCR and ABL1 genes located on chromosome bands 22q11.23 and 9q34.12, respectively. A reciprocal translocation between the two genes is present in virtually all cases of chronic myelocytic leukemia (CML), but also occurs in a subset of pediatric and adult acute lymphocytic leukemias (ALL), acute myelogenous leukemia (AML) and other malignancies.





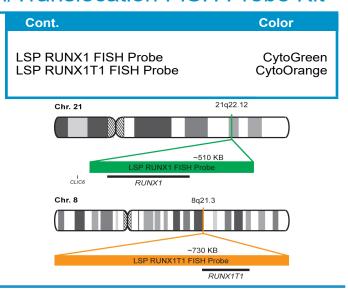




Cat. No. CT-PAC303-10-GO (100 µL)

### RUNX1-RUNX1T1 Dual Fusion/Translocation FISH Probe Kit

The RUNX1-RUNX1T1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human RUNX1 and RUNX1T1 genes located on chromosome bands 21q22.12 and 8q21.3, respectively. Rearrangements involving portions of these two genes, the RUNX1 gene – also known as AML1, AML1-EVI-1, AMLCR1, CBFA2, EVI-1 or PEBP2aB – and the RUNX1T1 gene – also called AML1-MTG8, AML1T1, CBFA2T1, CDR, ETO, MTG8 or ZMYND2, have been observed in acute nonlymphocytic leukemia and many other hematological malignancies.



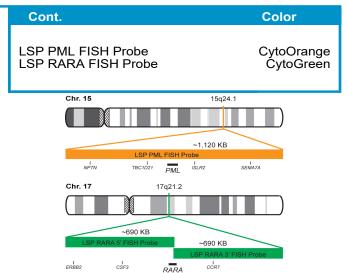
#### PML-RARA Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC304-10-OG (100 µL)

### PML-RARA Dual Fusion/Translocation FISH Probe Kit

The PML-RARA Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human PML and RARA genes, located on chromosome bands 15q24.1 and 17q21.2, respectively. Rearrangements between the two genes have been observed in acute promyelocytic leukemia and other malignancies.





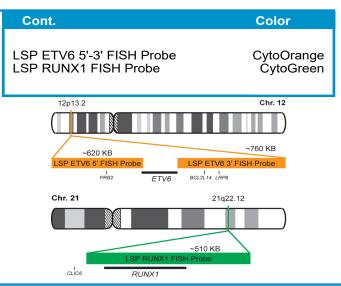




Cat. No. CT-PAC305-10-OG (100 μL)

### ETV6-RUNX1 Dual Fusion/Translocation FISH Probe Kit

The ETV6-RUNX1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human ETV6 and RUNX1 genes located on chromosome bands 12p13.2 and 21q22.12, respectively. Rearrangements between the two genes, the ETV6 gene – also called TEL, THC5 or TEL/ABL – and the RUNX1 gene – also known as AML1, AML1-EVI-1, AMLCR1, CBFA2, EVI-1 or PEBP2aB, have been observed in B-cell acute lymphocytic leukemia (ALL) and other malignancies.



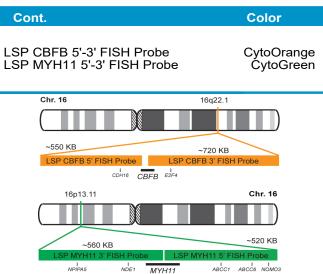
CBFB-MYH11 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC306-10-OG (100 μL)

### CBFB-MYH11 Dual Fusion/Translocation FISH Probe Kit

The CBFB-MYH11 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human CBFB and MYH11 genes located on chromosome bands 16q22.1 and 16p13.11, respectively. Rearrangements between the two genes, the CBFB gene – also known as CBFb or PEBP2B – and the MYH11 gene – also called AAT4, FAA4, SMHC or SMMHC, have been observed in acute myeloid leukemia (AML) and other hematological malignancies.





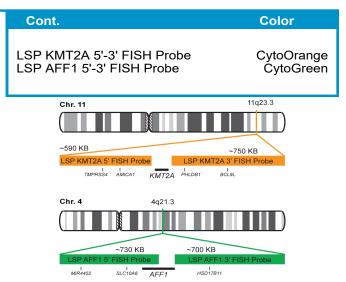




Cat. No. CT-PAC307-10-OG (100 µL)

#### KMT2A-AFF1 Dual Fusion/Translocation FISH Probe Kit

The KMT2A-AFF1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human KMT2A and AFF1 genes located on chromosome bands 11q23.3 and 4q21.3, respectively. Rearrangements between the two genes, the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL -1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL – and the AFF1 gene – also called AF4, PBM1 or MLLT2, have been observed in acute leukemias and other malignancies.



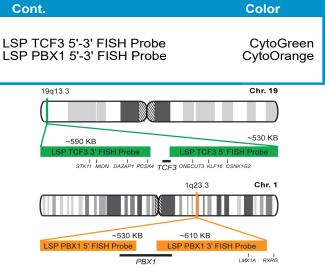
TCF3-PBX1 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC308-10-GO (100 µL)

# TCF3-PBX1 Dual Fusion/Translocation FISH Probe Kit

The TCF3-PBX1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TCF3 and PBX1 genes located on chromosome bands 19p13.3 and 1q23.3, respectively. Rearrangements between the two genes, the TCF3 gene – also known as E2A, E47, ITF1, VDIR, TCF-3 or bHLHb21, have been observed in B-cell acute lymphoblastic leukemias (B-ALL) and other tumor types.







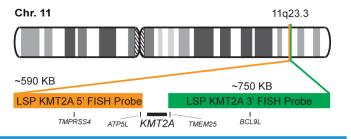


Cat. No. CT-PAC326-10-GO (100 µL)

# KMT2A Break Apart FISH Probe Kit

The KMT2A Break Apart FISH Probe Kit is designed to detect rearrangements in the human KMT2A gene located on chromosome band 11q23.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other aberrations such as deletions amplifications. Rearrangements and abnormal expression of the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL-1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL - have been observed in a large number of acute leukemias and other malignancies. Nearly 80 fusion partner genes have been identified to date.

Cont.	Color
LSP KMT2A 5' FISH Probe	CytoGreen
LSP KMT2A 3' FISH Probe	CytoOrange



### KMT2A Break Apart FISH Probe Kit

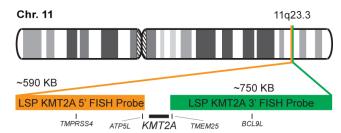


Cat. No. CT-PAC326-10-OG (100 μL)

# KMT2A Break Apart FISH Probe Kit

The KMT2A Break Apart FISH Probe Kit is designed to detect rearrangements in the human KMT2A gene located on chromosome band 11q23.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other KMT2A aberrations such as deletions amplifications. Rearrangements and abnormal expression of the KMT2A gene – also known as HRX, MLL, MLL1, TRX1, ALL-1, CXXC7, HTRX1, MLL1A, WDSTS, MLL/GAS7 or TET1-MLL - have been observed in a large number of acute leukemias and other malignancies. Nearly 80 fusion partner genes have been identified to date.

Cont.	Color
LSP KMT2A 5' FISH Probe	CytoOrange
LSP KMT2A 3' FISH Probe	CytoGreen







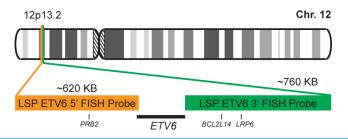


Cat. No. CT-PAC327-10-OG (100 μL)

### ETV6 Break Apart FISH Probe Kit

The ETV6 Break Apart FISH Probe Kit is designed to detect rearrangements in the human ETV6 gene located on chromosome band 12p13.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ETV6 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the ETV6 gene – also known as TEL, THC5 or TEL/ABL – have been observed in a large number of acute as well as chronic, lymphoid and myeloid malignancies.

Cont.	Color
LSP ETV6 5' FISH Probe	CytoOrange
LSP ETV6 3' FISH Probe	CytoGreen



#### CBFB Break Apart FISH Probe Kit

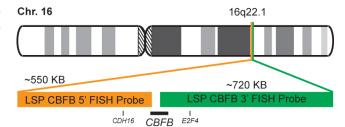


Cat. No. CT-PAC328-10-OG (100 µL)

### **CBFB Break Apart FISH Probe Kit**

The CBFB Break Apart FISH Probe Kit is designed to detect rearrangements in the human CBFB gene located on chromosome band 16q22.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other CBFB aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the CBFB gene – also known as CBFb or PEBP2B – have been observed in acute myeloid leukemia (AML) and other hematological malignancies.

Cont.	Color
LSP CBFB 5' FISH Probe	CytoOrange
LSP CBFB 3' FISH Probe	CytoGreen







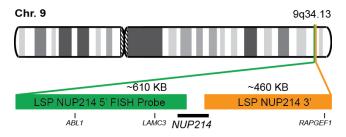


Cat. No. CT-PAC332-10-GO (100 μL)

### NUP214 Break Apart FISH Probe Kit

The NUP214 Break Apart FISH Probe Kit is designed to detect rearrangements in the human NUP214 gene located on chromosome band 9q34.13. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other NUP214 aberrations such as deletions or amplifications. Rearrangements and abnormal the NUP214 gene expression of called CAN, CAIN, or D9S46E - have been observed in childhood and adult acute and chronic leukemias, in myelodysplastic syndrome (MDS) and many other hematological malignancies.

Cont.	Color
LSP NUP214 5' FISH Probe	CytoGreen
LSP NUP214 3' FISH Probe	CytoOrange



#### RBM15-MKL1 Dual Fusion/Translocation FISH Probe Kit

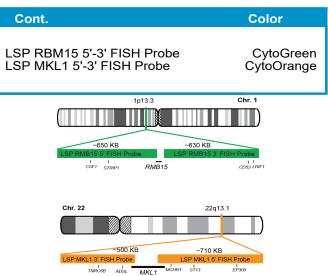


Cat. No. CT-PAC334-10-GO (100 µL)

### RBM15-MKL1 Dual Fusion/Translocation FISH Probe Kit

The RBM15-MKL1 Dual Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human RBM15 and MKL1 genes, located on chromosome bands 1p13.3 and 22q13.1, respectively.

RBM15 is also known as OTT, OTT1 or SPEN. MKL1 is also known as KIAA1438, MAL, MKL, BSAC or MRTF-A. Rearrangements involving portions of both genes have been observed in acute megakaryocytic leukemia and other hematological and solid tumor types.









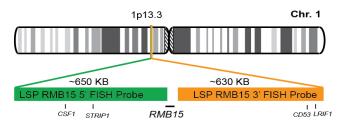
Cat. No. CT-PAC337-10-GO (100 µL)

### RBM15 Break Apart FISH Probe Kit

The RBM15 Break Apart FISH Probe Kit is designed to detect rearrangements in the human RBM15 gene mapping to chromosome band 1p13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other RBM15 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the RBM15 gene – also known as OTT, OTT1 or SPEN - have been observed in acute megakaryocytic leukemia (AML) and other tumor types.

Cont.	Color
LSP RBM15 5' FISH Probe	CytoGreen
LSP RBM15 3' FISH Probe	CytoOrange



### MKL1 Break Apart FISH Probe Kit



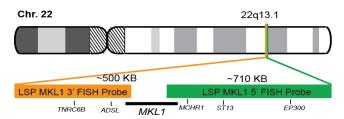
Cat. No. CT-PAC338-10-GO (100 μL)

# MKL1 Break Apart FISH Probe Kit

The MKL1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MKL1 gene mapping to chromosome band 22q13.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MKL1 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the MKL1 gene – also known as KIAA1438, MAL, MKL, BSAC or MRTF-A - have been observed in acute megakaryocytic leukemia and other hematological and solid tumor types.

Cont.	Color
LSP MKL1 5' FISH Probe	CytoGreen
LSP MKL1 3' FISH Probe	CytoOrange







#### KAT6A Break Apart FISH Probe Kit



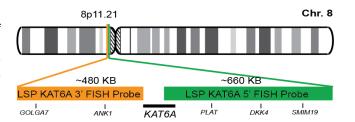
Cat. No. CT-PAC339-10-GO (100 µL)

# KAT6A Break Apart FISH Probe Kit

The KAT6A Break Apart FISH Probe Kit is designed to detect rearrangements in the human KAT6A gene mapping to chromosome band 8p11.21. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other KAT6A aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the KAT6A gene – also known as MOZ, MRD32, MYST3, MYST-3, ZNF220, RUNXBP2 or ZC2HC6A - have been observed in acute non-lymphocytic (AML) and monocytic leukemias, myelodysplastic syndrome and other cancer types.

Cont.	Color
LSP KAT6A 5' FISH Probe	CytoGreen
LSP KAT6A 3' FISH Probe	CytoOrange



#### TP53/CCP17 FISH Probe Kit

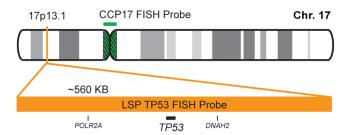


Cat. No. CT-PAC351-10-OG (100 µL)

### TP53/CCP17 FISH Probe Kit

The TP53/CCP17 FISH Probe Kit is designed to detect the human TP53 gene located on chromosome band 17p13.1, along with the number of chromosome 17 copies per cell. Abnormal expression of the TP53 gene – also known as P53, BCC7, LFS1 or TRP53 – has been observed in a large number of tumor types and some other conditions.

Cont.	Color
LSP TP53 FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen







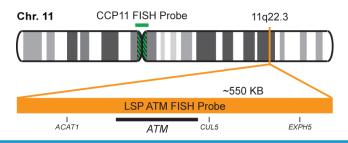


Cat. No. CT-PAC352-10-OG (100 μL)

### ATM/CCP11 FISH Probe Kit

The ATM/CCP11 FISH Probe Kit is designed to detect the human ATM gene located on chromosome band 11q22.3, along with the number of chromosome 11 copies per cell. Abnormalities in ATM – also known as AT1, ATA, ATC, ATD, ATE, ATDC, TEL1 or TEL01 – occur in ataxia telangiectasia, and have also been observed in chronic lymphocytic leukemia (CLL) and other malignancies.

Cont.	Color
LSP ATM FISH Probe	CytoOrange
CCP11 FISH Probe	CytoGreen



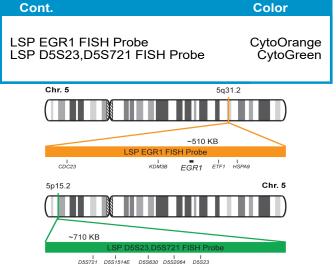
#### EGR1/D5S23, D5S721 FISH Probe Kit



Cat. No. CT-PAC353-10-OG (100 µL)

### EGR1/D5S23, D5S721 FISH Probe Kit

The EGR1/D5S23, D5S721 FISH Probe Kit is designed to detect the human EGR1 gene, located on chromosomes band 5q31.2, and the D5S23-D5S721 STS marker region on chromosome band 5p15.2. Abnormal expression of the EGR1 gene – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – has been observed in lung cancer and many other solid tumor types.







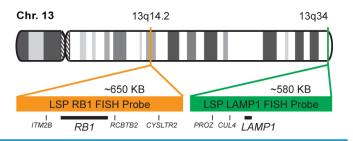


Cat. No. CT-PAC354-10-OG (100 µL)

#### RB1/LAMP1 FISH Probe Kit

The RB1/LAMP1 FISH Probe Kit is designed to detect the human RB1 and LAMP1 genes located on chromosome bands 13q14.2 and 13q34, respectively. Abnormal expression of the RB1 gene – also known as RB, pRb, OSRC, pp110, p105-Rb or PPP1R130 – has been observed in retinoblastoma, sarcomas and various other heritable and somatic tumor types.

Cont.	Color
LSP RB1 FISH Probe	CytoOrange
LSP LAMP1 FISH Probe	CytoGreen



#### CSF1R/D5S23, D5S721 FISH Probe Kit

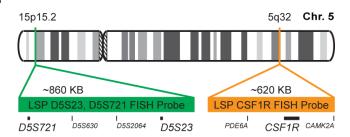


Cat. No. CT-PAC355-10-OG (100 µL)

### CSF1R/D5S23, D5S721 FISH Probe Kit

The CSF1R/D5S23, D5S721 FISH Probe Kit is designed to detect the human CSF1R gene, located on chromosomes band 5q32, and the D5S721-D5S23 marker region on chromosome band 5p15.2. Abnormalities in CSF1R – also known as FMS, CSFR, FIM2, HDLS, C-FMS, CD115, CSF-1R or M-CSF-R – have been observed in myeloid malignancies and several other cancer types.

Cont.	Color
LSP CSF1R FISH Probe	CytoOrange
LSP D5S23,D5S721 FISH Probe	CytoGreen







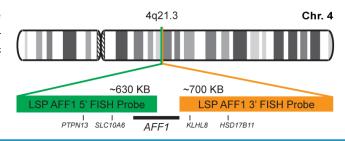


Cat. No. CT-PAC330-10-GO (100 µL)

# AFF1 Break Apart FISH Probe Kit

The AFF1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human AFF1 gene located on chromosome band 4q21.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other AFF1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the AFF1 gene – also known as AF4, PBM1 or MLLT2 – have been observed in B-cell acute lymphocytic leukemias and numerous other hematological malignancies.

Cont.	Color
LSP AFF1 5' FISH Probe	CytoGreen
LSP AFF1 3' FISH Probe	CytoOrange



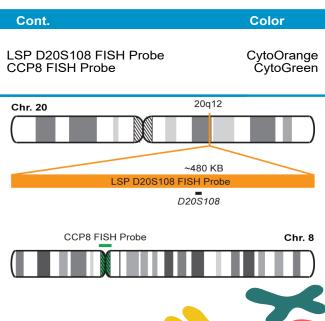
#### D20S108/CCP8 FISH Probe Kit



Cat. No. CT-PAC356-10-OG (100 µL)

### D20S108/CCP8 FISH Probe Kit

The D20S108/CCP8 FISH Probe Kit is designed to detect the human D20S108 STS marker regions located on chromosome band 20q12, along with the number of chromosome 8 copies per cell. Abnormalities in the D20S108 region are frequently found in myelodysplastic syndrome (MDS), acute myeloid leukemia (AML) and other myeloid disorders. Trisomy 8 is frequently reported in myeloid and lymphoid neoplasias.





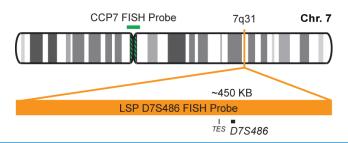


Cat. No. CT-PAC357-10-OG (100 μL)

### D7S486/CCP7 FISH Probe Kit

The D7S486/CCP7 FISH Probe Kit is designed to detect the human D7S486 STS marker region located on chromosome band 7q31.2 along with the number of chromosome 7 copies per cell. Abnormalities in the D7S486 region are frequently found in myelodysplastic syndrome (MDS), acute myeloid leukemia (AML) and other malignancies.

Cont.	Color
LSP D7S486 FISH Probe	CytoOrange
CCP7 FISH Probe	CytoGreen



#### D7S522/CCP7 FISH Probe Kit

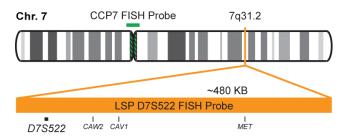


Cat. No. CT-PAC358-10-OG (100 µL)

### D7S522/CCP7 FISH Probe Kit

The D7S522/CCP7 FISH Probe Kit is designed to detect the human D7S522 STS marker region located on chromosome band 7q31.2, along with the number of chromosome 7 copies per cell. Abnormalities in the D7S522 STS marker region are frequently found in myelodysplastic syndrome (MDS), acute myeloid leukemia (AML) and other myeloid disorders.

Cont.	Color
LSP D7S522 FISH Probe	CytoOrange
CCP7 FISH Probe	CytoGreen







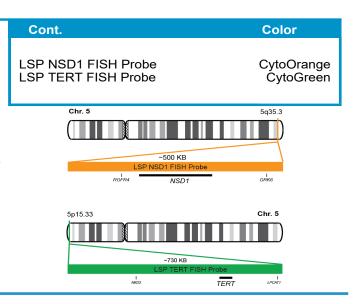


Cat. No. CT-PAC371-10-OG (100 µL)

#### **NSD1/TERT FISH Probe Kit**

The NSD1/TERT FISH Probe Kit is designed to detect the human NSD1 gene located on chromosome band 5q35.3, along with the human TERT gene on chromosome band 5p15.33.

Gains and losses of portions of the TERT gene – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1 – have been reported in a variety of tumor types. Abnormal expression or rearrangements of the NSD1 gene – also known as STO, KMT3B, SOTOS, ARA267 or SOTOS1 - has been observed in acute myeloid leukemia (AML), other neoplasms and some inherited defects such as Sotos syndrome and Weaver syndrome.



#### NSD1/D5S23, D5S721 FISH Probe Kit

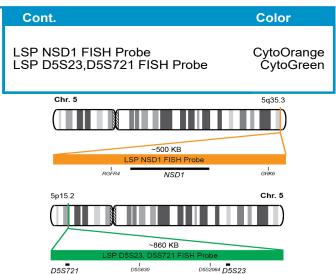


Cat. No. CT-PAC372-10-OG (100 µL)

### NSD1/D5S23, D5S721 FISH Probe Kit

The NSD1/D5S23,D5S721 FISH Probe Kit is designed to detect the human NSD1 gene located on chromosome band 5q35.3, along with the human D5S23, D5S721 region located on chromosome band 5p15.2.

Abnormal expression or rearrangements of the NSD1 gene – also known as STO, KMT3B, SOTOS, ARA267 or SOTOS1 - have been observed in acute myeloid leukemia (AML), other neoplasms and some inherited defects such as Sotos syndrome and Weaver syndrome.







# Pancreatic Cancer

NTRK1 Break Apart FISH Probe Kit	102
NTRK2 Break Apart FISH Probe Kit	102
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RREB1/MYB/CCP6/CCND1 FISH Probe Kit	104
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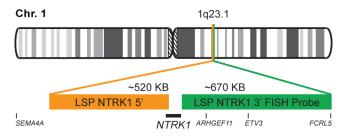


Cat. No. CT-PAC143-10-OG (100 µL)

# NTRK1 Break Apart FISH Probe Kit

The NTRK1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human NTRK1 gene located on chromosome band 1g23.1. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other NTRK1 aberrations such as deletions amplifications. Rearrangements and abnormal expression of the NTRK1 gene – also known as MTC, TRK, TRK1, TRKA, Trk-A or p140-TrkA - have been observed in papillary thyroid carcinoma and other malignancies.

Cont.	Color
LSP NTRK1 5' FISH Probe	CytoOrange
LSP NTRK1 3' FISH Probe	CytoGreen



#### NTRK2 Break Apart FISH Probe Kit



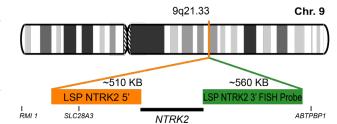
Cat. No. CT-PAC396-10-OG (100 μL)

### NTRK2 Break Apart FISH Probe Kit

The NTRK2 Break Apart FISH Probe Kit is designed to detect rearrangements in the human NTRK2 gene located on chromosome band 9q21.33. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other NTRK2 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the NTRK2 gene – also known as OBHD, TRKB, trk-B, EIEE58 or GP145-TrkB - has been observed in neuroblastoma, pancreatic ductal adenocarcinoma, Wilms' tumors and colorectal cancer, and a number of developmental and metabolic disorders.

Cont.	Color
LSP NTRK2 5' FISH Probe	CytoOrange
LSP NTRK2 3' FISH Probe	CytoGreen







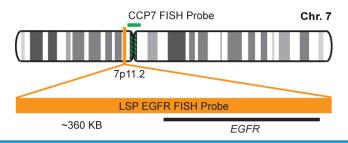


Cat. No. CT-PAC011-10-OG (100 µL)

### EGFR/CCP7 FISH Probe Kit

The EGFR/CCP7 FISH Probe Kit is designed to detect the human EGFR gene located on chromosome band 7p11.2, along with the number of chromosome 7 copies per cell. Abnormal expression of the EGFR gene – also known as TIS8, AT225, G0S30, NGFI-A, ZNF225, KROX-24 or ZIF-268 – has been observed in leukemia, fibrosarcoma, lung, breast, brain, liver, skin, prostate and other tumor types.

1	Cont.	Color
	LSP EGFR FISH Probe CCP7 FISH Probe	CytoOrange CytoGreen



TGFBR3-MGEA5 Dual Fusion/Translocation FISH Probe Kit



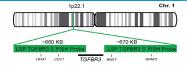
Cat. No. CT-PAC248-10-GO (100 μL)

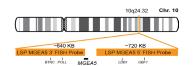
### TGFBR3-MGEA5 Dual Fusion/Translocation FISH Probe Kit

The TGFBR3-MGEA5 Dual Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human TGFBR3 and MGEA5 genes, located on chromosome bands 1p22.1 and 10q24.32, respectively. TGFBR3 is also known as BGCAN or betaglycan. MGEA5 is also known as OGA, MEA5 or NCOAT.

Rearrangements involving portions of both genes are frequent in some fibroblastic and fibrolipomatous sarcomas and are also found in multiple myeloma and many other malignancies, including breast, colorectal, hepatocellular, oral, lung, prostate, ovarian, pancreatic and other cancers.

Cont.	Color
LSP TGFBR3 5'-3' FISH Probe	CytoGreen
LSP MGEA5 5'-3' FISH Probe	CytoOrange







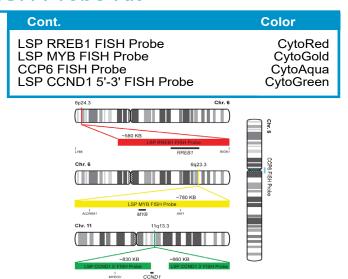




Cat. No. CT-PAC249-10-RYAG (100 μL)

#### RREB1/MYB/CCP6/CCND1 FISH Probe Kit

The RREB1/MYB/CCP6/CCND1 FISH Probe Kit is designed to detect the human RREB1, MYB and CCND1 genes located on chromosome bands 6p24.3, 6q23,3 and 11q13.3, respectively, along with the number of chromosome 6 copies per cell. Abnormal expression of the RREB1 gene – also known as Zep –1, RREB-1, LZ321, HNT or FINB –, the MYB gene – also called efg, Cmyb, c-myb or c-myb\_CDS – and the CCND1 gene – also recognized as BCL1, D11S287E, PRAD1 or U21B31 – have been observed in colorectal and pancreatic cancer, melanoma and other malignancies.



#### RREB1/CCP6 FISH Probe Kit

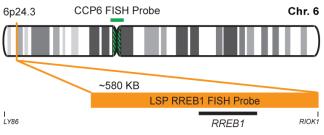


Cat. No. CT-PAC150-10-OG (100 µL)

### RREB1/CCP6 FISH Probe Kit

The RREB1/CCP6 FISH Probe Kit is designed to detect the human RREB1 gene located on chromosome band 6p24.3, along with the number of chromosome 6 copies per cell. Abnormalities in RREB1 – also known as Zep-1, RREB-1, LZ321, HNT, or FINB – have been observed in colorectal cancer, prostate adenocarcinoma, pancreatic cancer and other malignancies.

1	Cont.	Color
	LSP RREB1 FISH Probe CCP6 FISH Probe	CytoOrange CytoGreen







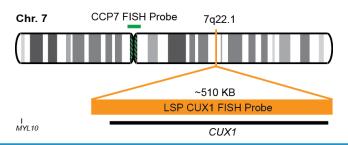


Cat. No. CT-PAC128-10-OG (100 µL)

### CUX1/CCP7 FISH Probe Kit

The CUX1/CCP7 FISH Probe Kit is designed to detect the human CUX1 gene located on chromosome bands 7q22.1, along with the number of chromosome 7 copies per cell. Abnormalities in CUX1 – also known as p75, p200, p110, Nbla10317, GOLIM6, FLJ31745, Cux/CDP, Clox, CUX, CUTL1, COY1, CDP1, CDP/Cut, CDP, or CASP – has been observed elevated in pancreatic, breast and other cancers.

Cont.	Color
LSP CUX1 FISH Probe CCP7 FISH Probe	CytoOrange CytoGreen



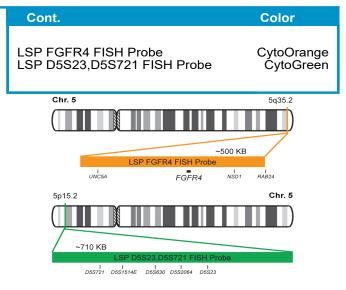
#### FGFR4/D5S23, D5S721 FISH Probe Kit



Cat. No. CT-PAC132-10-OG (100 μL)

### FGFR4/D5S23, D5S721 FISH Probe Kit

The FGFR4/D5S23, D5S721 FISH Probe Kit is designed to detect the human FGFR4 gene located on chromosome band 5q35.2 and the D5S23-D5S721 marker region on chromosome band 5p15.2. Abnormalities in FGFR4 – also known as CD334, JTK2 or TKF – have been observed in various cancer types such as prostate cancer, melanoma, hepatocellular carcinoma, lung cancer, breast cancer, gastric cancer, colorectal cancer, pancreatic cancer and others.







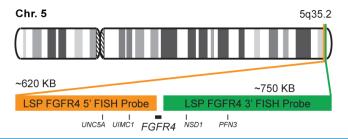


Cat. No. CT-PAC133-10-OG (100 μL)

# FGFR4 Break Apart FISH Probe Kit

The FGFR4 Break Apart FISH Probe Kit is designed to detect rearrangements in the human FGFR4 gene located on chromosome band 5q35.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other FGFR4 aberrations such as deletions amplifications. Rearrangements and abnormal expression of the FGFR4 gene - also known as CD334, JTK2 or TKF - have been observed in various cancer types such as prostate cancer, melanoma, hepatocellular carcinoma, lung cancer, breast cancer, gastric cancer, colorectal cancer, pancreatic cancer and others.

Cont.	Color
LSP FGFR4 5' FISH Probe	CytoOrange
LSP FGFR4 3' FISH Probe	CytoGreen



#### KRAS/CCP12 FISH Probe Kit

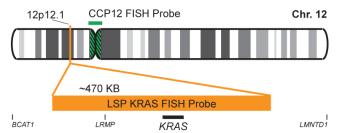


Cat. No. CT-PAC138-10-OG (100 µL)

### KRAS/CCP12 FISH Probe Kit

The KRAS/CCP12 FISH Probe Kit is designed to detect the human KRAS gene located on chromosome band 12p12.1, along with the number of chromosome 12 copies per cell. Abnormal expression or rearrangements of the KRAS gene – also known as K-RAS or c-Ki-ras 2 – has been observed in various tumor types such as pancreas, colon and rectum, lung, thyroid, prostate, kidney and others. Aberrations of the gene have also been spotted in acute non lymphocytic leukemia and myelodysplasia.

Cont.	Color
LSP KRAS FISH Probe	CytoOrange
CCP12 FISH Probe	CytoGreen







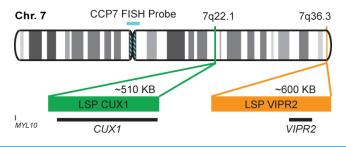


Cat. No. CT-PAC163-10-GOA (100 µL)

#### CUX1/VIPR2/CCP7 FISH Probe Kit

The CUX1/VIPR2/CCP7 FISH Probe Kit is designed to detect the human CUX1 gene located on chromosome band 7q22.1, and the VIPR2 gene on chromosome band 7q36.3, along with the number of chromosome 7 copies per cell. Expression of the CUX1 gene - also known as CDP, CUX, p75, CASP, CDP1, COY1, Clox, p100, p110, p200, CUTL1, GOLIM6, CDP/Cut, Cux/CDP or Nbla10317 - has been observed elevated in pancreatic, breast and other cancers. Duplications and other anomalies in the region of the VIPR2 gene also called VPAC2, VPAC2R, VIP-R-2, VPCAP2R, PACAP-R3, DUP7q36.3, PACAP-R-3 C16DUPq36.3 - are associated with schizophrenia, malformations prenatal and some intestinal malignancies.

Cont.	Color
LSP CUX1 FISH Probe	CytoGreen
LSP VIPR2 FISH Probe	CytoOrange
CCP7 FISH Probe	CytoAqua



#### CUX1/VIPR2 FISH Probe Kit

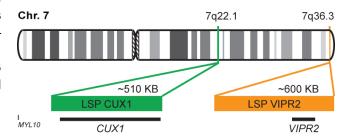


Cat. No. CT-PAC162-10-GO (100 μL)

### CUX1/VIPR2 FISH Probe Kit

The CUX1/VIPR2 FISH Probe Kit is designed to detect the human CUX1 gene located on chromosome band 7q22.1 and the VIPR2 gene on chromosome band 7q36.3. Expression of the CUX1 gene – also known as CDP, CUX, p75, CASP, CDP1, COY1, Clox, p100, p110, p200, CUTL1, GOLIM6, CDP/Cut, Cux/CDP or Nbla10317 – has been observed elevated in pancreatic, breast and other cancers. Duplications and other anomalies in the region of the VIPR2 gene – also called VPAC2, VPAC2R, VIP-R-2, VPCAP2R, PACAP-R3, DUP7q36.3, PACAP-R-3, C16DUPq36.3 – are associated with schizophrenia, prenatal malformations and some intestinal malignancies.

Cont.	Color
LSP CUX1 FISH Probe	CytoGreen
LSP VIPR2 FISH Probe	CytoOrange







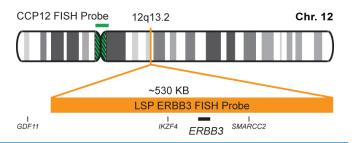


Cat. No. CT-PAC029-10-OG (100 µL)

# ERBB3/CCP12 FISH Probe Kit

The ERBB3/CCP12 FISH Probe Kit is designed to detect the human ERBB3 gene located on chromosome band 12q13.2, along with the number of chromosome 12 copies per cell. Abnormal expression of the ERBB3 gene – also known as HER3, LCCS2, ErbB-3, c-erbB3, erbB3-S, MDA-BF-1, c-erbB-3, p180-ErbB3, p45-sErbB3 or p85-sErbB3 – has been observed in breast, ovarian, prostate, pancreatic, lung and other cancers, and other conditions.

Cont.	Color
LSP ERBB3 FISH Probe	CytoOrange
CCP12 FISH Probe	CytoGreen



#### PTGS2/CCP1 FISH Probe Kit

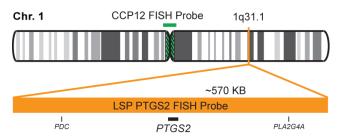


Cat. No. CT-PAC006-10-OG (100 µL)

# PTGS2/CCP1 FISH Probe Kit

The PTGS2/CCP1 FISH Probe Kit is designed to detect the human PTGS2 gene located on chromosome band 1q31.1, along with the number of chromosome 1 copies per cell. Abnormal expression of the PTGS2 gene – also known as COX2, COX-2, PHS-2, PGG/HS, PGHS-2, hCox-2 or GRIPGHS – has been observed in colorectal, lung, uterine, ovarian, pancreatic and many other tumor types.

Cont.	Color
LSP PTGS2 FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen







# CNS & Brain

# CNS & Brain Cancer

BRAF-KIAA1549 Dual Fusion/Translocation FISH Probe Kit	110
SOX2/CCP3 FISH Probe Kit	110
TERT/EGR1 FISH Probe Kit	111
KIAA1549 Break Apart FISH Probe Kit	111
MNX1 Break Apart FISH Probe Kit	112
PIK3CA/CCP3 FISH Probe Kit	112
IGH-EPOR Dual Fusion/Translocation FISH Probe Kit	113
ALK Break Apart FISH Probe Kit	113





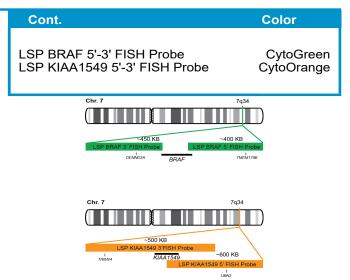


Cat. No. CT-PAC325-10-GO (100 μL)

# BRAF-KIAA1549 Dual Fusion/Translocation FISH Probe Kit

The KIAA1549-BRAF Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human BRAF and KIAA1549 genes, both located on chromosome band 7q34.

Fusions of BRAF – also known as v-raf murine sarcoma viral oncogene homolog B1, BRAF1 or RAFB1 – with KIAA1549 have been found in many cases of pilocytic astrocytoma, as well as other malignancies.



#### SOX2/CCP3 FISH Probe Kit

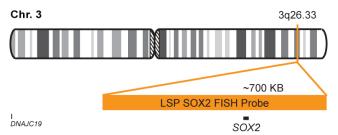


Cat. No. CT-PAC032-10-OG (100 µL)

# SOX2/CCP3 FISH Probe Kit

The SOX2/CCP3 FISH Probe Kit is designed to detect the human SOX2 gene located on chromosome band 3q26.33, along with the number of chromosome 3 copies per cell. Abnormal expression of the SOX2 gene – also known as ANOP3 or MCOPS – has been observed in glioma, lung, gastric, breast, colorectal and other cancer types.

Cont.	Color
LSP SOX2 FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen







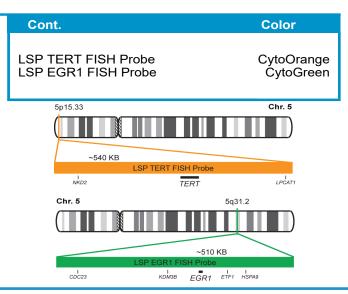


Cat. No. CT-PAC167-10-OG (100 µL)

#### TERT/EGR1 FISH Probe Kit

The TERT/EGR1 FISH Probe Kit is designed to detect the human TERT gene on chromosome band 5p15.33, and the EGR1 gene on chromosome band 5q31.2.

Abnormalities in TERT – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1 – and abnormalities in EGR1 – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – have been observed in myeloid malignancies, fibrosarcoma, lung, brain, breast, skin, prostate liver and various other cancer types.



# KIAA1549 Break Apart FISH Probe Kit



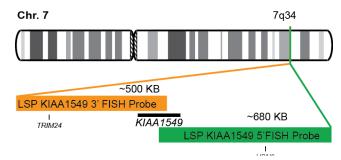
Cat. No. CT-PAC336-10-GO (100 μL)

# KIAA1549 Break Apart FISH Probe Kit

The KIAA1549 Break Apart FISH Probe Kit is designed to detect rearrangements in the human KIAA1549 locus mapping to chromosome band 7q34. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other KIAA1549 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the KIAA1549 gene have been observed in astrocytomas and other solid tumor types.

Cont.	Color
LSP KIAA1549 5' FISH Probe	CytoGreen
LSP KIAA1549 3' FISH Probe	CytoOrange









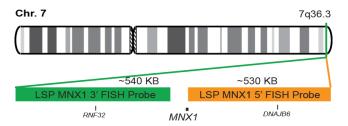
Cat. No. CT-PAC040-10-OG (100 µL)

# MNX1 Break Apart FISH Probe Kit

The MNX1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MNX1 gene mapping to chromosome band 7q36.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MNX1 aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the MNX1 gene – also known as HB9, HLXB9, SCRA1 or HOXHB9 - have been observed in acute myeloid leukemia (AML) and other tumor types.

Cont.	Color
LSP MNX1 5' FISH Probe	CytoOrange
LSP MNX1 3' FISH Probe	CytoGreen



#### PIK3CA/CCP3 FISH Probe Kit

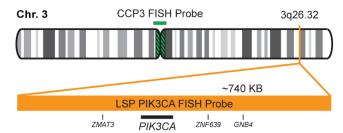


Cat. No. CT-PAC012-10-OG (100 µL)

# PIK3CA/CCP3 FISH Probe Kit

The PIK3CA/CCP3 FISH Probe Kit is designed to detect the human PIK3CA gene located on chromosome band 3q26.32, along with the number of chromosome 3 copies per cell. Abnormal expression of the PIK3CA gene – also known as MCM, CWS5, MCAP, PI3K, CLOVE, MCMTC or p110-alpha – has been observed in a variety of human cancers, including colon, breast, ovarian, brain, lung, stomach and other tumors.

Cont.	Color
LSP PIK3CA FISH P	robe CytoOrange
CCP3 FISH Probe	CytoGreen





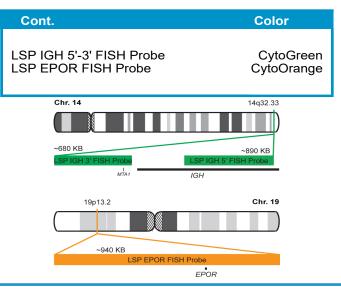




Cat. No. CT-PAC301-10-GO (100 µL)

# IGH-EPOR Dual Fusion/Translocation FISH Probe Kit

The IGH-EPOR Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and EPOR gene, located on chromosome bands 14q32.33 and 19p13.2, respectively. Rearrangements between the two regions have been observed in B-cell acute lymphoblastic leukemia (B-ALL).



# ALK Break Apart FISH Probe Kit

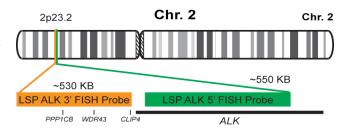


Cat. No. CT-PAC009-10-GO (100 μL)

# ALK Break Apart FISH Probe Kit

The ALK Break Apart FISH Probe Kit is designed to detect rearrangements in the human ALK gene located on chromosome band 2p23.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other ALK aberrations such as deletions or amplifications. Initially discovered in anaplastic large cell lymphoma (ACLC), rearrangements of ALK - also known as CD246 or NBLST3 - have since been found in many types of malignancies, including B- and T-cell lymphomas, plasmacytomas, neuroblastoma, esophageal, breast, kidney, colon thyroid, lung and other cancers. A significant percentage of non-small cell lung cancer (NSCLC) cases harbor ALK gene abnormalities.

Cont.	Color
LSP ALK 5' FISH Probe	CytoGreen
LSP ALK 3' FISH Probe	CytoOrange







# Lymphoma

TFG Break Apart FISH Probe Kit	116
BIRC3-MALT1 Dual Fusion/Translocation FISH Probe Kit	116
NPM1-ALK Fusion/Translocation FISH Probe Kit	117
CD37/ZNF443 FISH Probe Kit	117
CDK12/CCP17 FISH Probe Kit	118
CSF1R/EGR1 FISH Probe Kit	118
MCL1/CCP1 FISH Probe Kit	119
TERT/EGR1 FISH Probe Kit	119
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IGH-CCND3 Dual Fusion/Translocation FISH Probe Kit	120
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IGH-MYC/CCP8 Tri-color Fusion/Translocation FISH Probe Kit	122
IGH Break Apart FISH Probe Kit	122
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BCL6 Break Apart FISH Probe Kit	124
PDGFRB Break Apart FISH Probe Kit	124





# Lymphome

# Lymphoma

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IGH-CCND1 Dual Fusion/Translocation FISH Probe Kit	125
IGH-MYC Dual Fusion/Translocation FISH Probe Kit	126
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IGH-MYC Dual Fusion/Translocation LR FISH Probe Kit	131
CSF1R Break Apart FISH Probe Kit	131





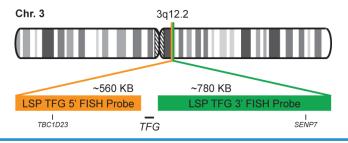


Cat. No. CT-PAC042-10-OG (100 μL)

# TFG Break Apart FISH Probe Kit

The TFG Break Apart FISH Probe Kit is designed to detect rearrangements in the human TFG gene located on chromosome band 3q12.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TFG aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TFG gene — also known as TF6, HMSNP, SPG57 or TRKT3 — have been observed in anaplastic large cell lymphoma, thyroid papillary carcinoma, extraskeletal myxoid chondrosarcoma, renal cell carcinoma and other cancer types.

Cont.	Color
LSP TFG 5' FISH Probe	CytoOrange
LSP TFG 3' FISH Probe	CytoGreen



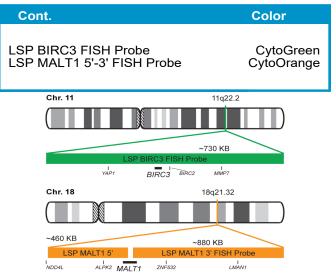
#### BIRC3-MALT1 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC062-10-GO (100 μL)

# BIRC3-MALT1 Dual Fusion/Translocation FISH Probe Kit

The BIRC3-MALT1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human BIRC3 and MALT1 genes located on 11q22.2 18q21.32, chromosome bands and respectively. Rearrangements involving portions of these two genes, the BIRC3 gene - also known as AIP1, API2, CIAP2, HAIP1, HIAP1, MALT2, MIHC, RNF49 or c-IAP2 - and the MALT1 gene - also called IMD12, MLT or MLT1, have been observed in mucosa-associated lymphoid tissue (MALT) and other lymphoma types.





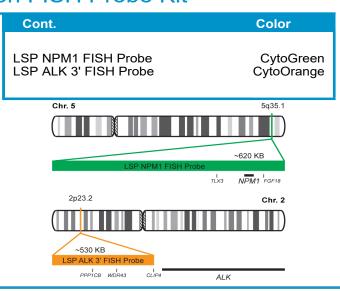




Cat. No. CT-PAC075-10-GO (100 µL)

## NPM1-ALK Fusion/Translocation FISH Probe Kit

The NPM1-ALK Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human NPM1 and ALK genes located on chromosome bands 5q35.1 and 2p23.2, respectively. Rearrangements between the two genes, the NPM1 gene – also called B23 or NPM – and the ALK gene – also known as CD246 or NBLST3, have been observed in anaplastic large cell lymphoma and other myeloid malignancies.



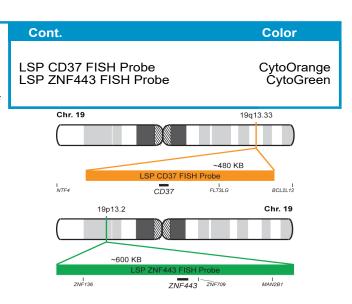
#### CD37/ZNF443 FISH Probe Kit



Cat. No. CT-PAC122-10-OG (100 µL)

# CD37/ZNF443 FISH Probe Kit

The CD37/ZNF443 FISH Probe Kit is designed to detect rearrangements involving the human CD37 gene located on chromosome band 19q13.33, along with the region around ZNF443 gene located on chromosome band 19p13.2 measuring the integrity of chromosome 19. Abnormal expression of the CD37 gene – also called GP52-40 or TSPAN26 – is upregulated in Burkitt's lymphoma and other B-cell malignancies, and expressed in a number of solid tumor types as well.







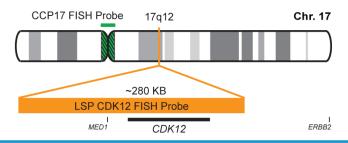


Cat. No. CT-PAC123-10-OG (100 µL)

# CDK12/CCP17 FISH Probe Kit

The CDK12/CCP17 FISH Probe Kit is designed to detect the human CDK12 gene located on chromosome band 17q12, along with the number of chromosome 17 copies per cell. Rearrangements and abnormal expression of the CDK12 gene – also known as CRK7, CRKR or CRKRS – have been reported in gastric cancer, ovarian cancer and other malignancies.

Cont.	Color
LSP CDK12 FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen



#### CSF1R/EGR1 FISH Probe Kit

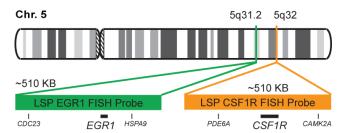


Cat. No. CT-PAC127-10-OG (100 μL)

# CSF1R/EGR1 FISH Probe Kit

The CSF1R/EGR1 FISH Probe Kit is designed to detect the human CSF1R gene, located on chromosome band 5q32, and the EGR1 gene on chromosome band 5q31.2. Abnormalities in CSF1R – also known as FMS, CSFR, FIM2, HDLS, C-FMS, CD115, CSF-1R or M-CSF-R – and abnormalities in EGR1 – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – have been observed in myeloid malignancies, lung cancer and several other cancer types.

Cont.	Color
LSP CSF1R FISH Probe	CytoOrange
LSP EGR1 FISH Probe	CytoGreen







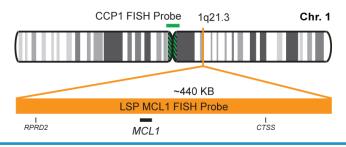


Cat. No. CT-PAC140-10-OG (100 µL)

# MCL1/CCP1 FISH Probe Kit

The MCL1/CCP1 FISH Probe Kit is designed to detect the human MCL1 gene located on chromosome band 1q21.3, along with the number of chromosome 1 copies per cell. Abnormal expression or rearrangements of the MCL1 gene – also known as mcl1/EAT, bcl2-L-3, TM, Mcl-1, MCL1S, MCL1L, MCL1-ES, EAT or BCL2L3 – have been observed in chronic myelogenous leukemia (CML), multiple myeloma (MM), B-cell non-Hodgkin's lymphomas and other malignancies.

Cont.	Color
LSP MCL1 FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen



#### TERT/EGR1 FISH Probe Kit



Cat. No. CT-PAC167-10-OG (100 μL)

# TERT/EGR1 FISH Probe Kit

The TERT/EGR1 FISH Probe Kit is designed to detect the human TERT gene on chromosome band 5p15.33, and the EGR1 gene on chromosome band 5q31.2.

Abnormalities in TERT – also known as TP2, TRT, CMM9, EST2, TCS1, hTRT, DKCA2, DKCB4, hEST2 or PFBMFT1 – and abnormalities in EGR1 – also known as ERBB, HER1, mENA, ERBB1, PIG61 or NISBD2 – have been observed in myeloid malignancies, fibrosarcoma, lung, brain, breast, skin, prostate liver and various other cancer types.

Cont.	Color
LSP TERT FISH Probe LSP EGR1 FISH Probe	CytoOrange CytoGreen
5p15.33	Chr. 5
~540 KB	
	ΓFISH Probe
I NKD2	TERT LPCAT1
Chr. 5	5q31.2
	~510 KB
LSP EGR	1 FISH Probe
CDC23 KDM	M3B EGR1 ETF1 HSPA9





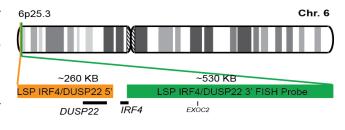


Cat. No. CT-PAC181-10-OG (100 µL)

# IRF4/DUSP22 Break Apart FISH Probe Kit

The IRF4/DUSP22 Break Apart FISH Probe Kit is designed to detect rearrangements in the human IRF4 and DUSP22 genes and the surrounding regions located on chromosome band 6p25.3. In addition to revealing breaks, which can lead to translocation of parts of the genes, inversion, or their fusion to other genes, the probe set can also be used to identify other IRF4 and DUSP22 aberrations such as deletions or amplifications. Rearrangements and expression of the IRF4 gene - also known as NF-EM5, MUM1, LSIRF or IRF-4 - and the DUSP22 gene - also called JKAP, JSP-1, JSP1, LMW-DSP2, LMWDSP2, MKP-x, MKPX or VHX - have been observed in multiple myeloma (MM) and other lymphoid malignancies, viral malignancies, skin cancer and lymphomatoid papulosis (LyP), a chronic papulonecrotic or papulonodular skin disease with

Cont.	Color
LSP IRF4/DUSP22 5' FISH Probe	CytoOrange
LSP IRF4/DUSP22 3' FISH Probe	CytoGreen



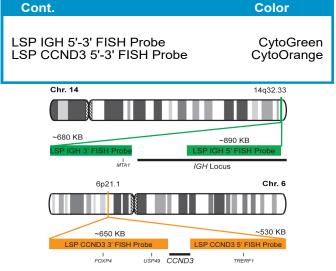
#### IGH-CCND3 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC188-10-GO (100 µL)

# IGH-CCND3 Dual Fusion/Translocation FISH Probe Kit

The IGH-CCND3 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and the CCND3 gene located on chromosome bands 14q32.33 and 6p21.1, respectively. Rearrangements between the two regions have been observed in several types of hematological malignancies.







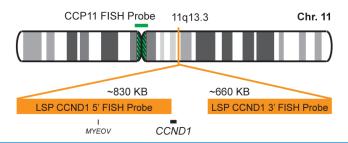


Cat. No. CT-PAC189-10-OG (100 µL)

# CCND1/CCP11 FISH Probe Kit

The CCND1/CCP11 FISH Probe Kit is designed to detect the human CCND1 gene located on chromosome band 11q13.3, along with the number of chromosome 11 copies per cell. Abnormal expression of the CCND1 gene – also know as BCL1, D11S287E, PRAD1, or HU21B31 – has been observed in breast carcinoma and a number of other malignancies.

Cont.	Color
LSP CCND1 5'-3' FISH Probe	CytoOrange
CCP11 FISH Probe	CytoGreen



# TLX1 Break Apart FISH Probe Kit

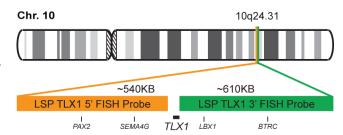


Cat. No. CT-PAC194-10-OG (100 µL)

# TLX1 Break Apart FISH Probe Kit

The TLX1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human TLX1 gene located on chromosome band 10q24.31. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other TLX1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the TLX1 gene - also known as TCL3 or HOX11 - have been observed in acute lymphoblastic leukemia (ALL), non-Hodgkin lymphoma (NHL) and other malignancies.

Cont.		Color
	5' FISH Probe 3' FISH Probe	CytoOrange CytoGreen





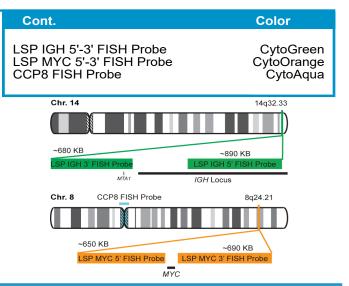




Cat. No. CT-PAC199-10-GOA (100 µL)

# IGH-MYC/CCP8 Tri-color Fusion/Translocation FISH Probe Kit

The IGH-MYC/CCP8 Tri-color Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and MYC gene, located on chromosome bands 14q32.33 and 8q24.21, respectively, along with the number of chromosome 8 copies per cell. Rearrangements between the two regions have been observed in Burkitt's Lymphoma (BL) and other lymphomas and leukemias.



# IGH Break Apart FISH Probe Kit

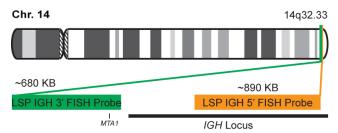


Cat. No. CT-PAC201-10-OG (100 μL)

# IGH Break Apart FISH Probe Kit

The IGH Break Apart FISH Probe Kit is designed to detect rearrangements in the human IGH locus located on chromosome band 14q32.33. In addition to revealing breaks, which can lead to translocation of parts of the locus, inversion, or its fusion to other genes, the probe set can also be used to identify other IGH aberrations such as deletions or amplifications. Rearrangements involving the IGH locus have been observed in many leukemia and lymphoma types.

Cont.	Color
LSP IGH 5' FISH Probe	CytoOrange
LSP IGH 3' FISH Probe	CytoGreen







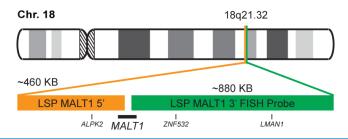


Cat. No. CT-PAC202-10-OG (100 μL)

# MALT1 Break Apart FISH Probe Kit

The MALT1 Break Apart FISH Probe Kit is designed to detect rearrangements in the human MALT1 gene located on chromosome band 18q21.32. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other MALT1 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the MALT1 gene – also known as MLT, MLT1 or IMD12 – have been observed in B-cell lymphomas and other malignancies.

Cont.	Color
LSP MALT1 5' FISH Probe	CytoOrange
LSP MALT1 3' FISH Probe	CytoGreen



# BCL2 Break Apart FISH Probe Kit

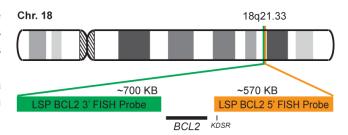


Cat. No. CT-PAC206-10-OG (100 µL)

# **BCL2 Break Apart FISH Probe Kit**

The BCL2 Break Apart FISH Probe Kit is designed to detect rearrangements in the human BCL2 gene located on chromosome band 18q21.33. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other BCL2 aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the BCL2 gene – also known as Bcl-2 or PPP1R50 – is routinely found in follicular lymphoma but also occurs in many other hematological and solid cancer types. One particularly common rearrangement is a reciprocal translocation to the IGH@ locus on chromosome 14.

Cont.	Color
LSP BCL2 5' FISH Probe	CytoOrange
LSP BCL2 3' FISH Probe	CytoGreen







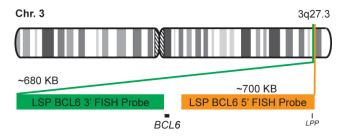


Cat. No. CT-PAC207-10-OG (100 µL)

# BCL6 Break Apart FISH Probe Kit

The BCL6 Break Apart FISH Probe Kit is designed to detect rearrangements in the human BCL6 gene located on chromosome band 3q27.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other BCL6 aberrations such as deletions or amplifications. Rearrangements of the BCL6 gene – also known as BCL5, LAZ3, BCL6A, ZNF51 or ZBTB27 – have been observed in B-cell lymphomas and leukemias. BCL6 is also dysregulated in multiple myeloma cases and several solid tumor types. More than 30 different translocation partner genes have been described.

Cont.	Color
LSP BCL6 5' FISH Probe	CytoOrange
LSP BCL6 3' FISH Probe	CytoGreen



## PDGFRB Break Apart FISH Probe Kit

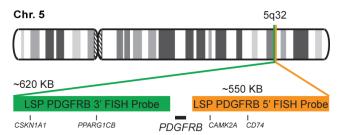


Cat. No. CT-PAC210-10-OG (100 μL)

# PDGFRB Break Apart FISH Probe Kit

The PDGFRB Break Apart FISH Probe Kit is designed to detect rearrangements in the human PDGFRB gene located on chromosome band 5q32. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other PDGFRB aberrations such as deletions amplifications. Rearrangements and abnormal expression of the PDGFRB gene - also known as IMF1, IBGC4, JTK12, PDGFR, CD140B, PDGFR1 or PDGFR-1 - have been observed in several chronic myeloproliferative disorders.

Cont.	Color
LSP PDGFRB 5' FISH Probe	CytoOrange
LSP PDGFRB 3' FISH Probe	CytoGreen





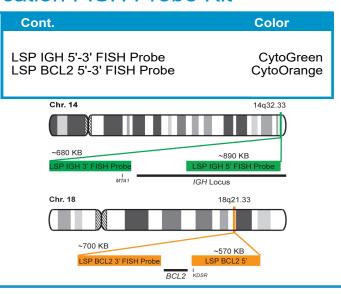




Cat. No. CT-PAC221-10-GO (100 µL)

# IGH-BCL2 Dual Fusion/Translocation FISH Probe Kit

The IGH-BCL2 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and the BCL2 gene, located on chromosome bands 14q32.33 and 18q21.33, respectively. Rearrangements between the two regions are routinely found in follicular lymphoma but also occur in many other hematological and solid cancer types.



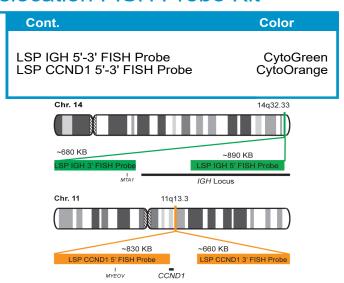
#### IGH-CCND1 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC222-10-GO (100 μL)

# IGH-CCND1 Dual Fusion/Translocation FISH Probe Kit

The IGH-CCND1 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and CCND1 gene located on chromosome bands 14q32.33 and 11q13.3, respectively. Rearrangements between the two regions have been observed in several types of hematological malignancies.





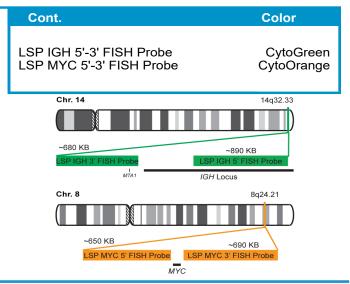




Cat. No. CT-PAC223-10-GO (100 µL)

## IGH-MYC Dual Fusion/Translocation FISH Probe Kit

The IGH-MYC Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and MYC gene, located on chromosome bands 14q32.33 and 8q24.21, respectively. Rearrangements between the two regions have been observed in Burkitt's Lymphoma (BL) and other lymphomas and leukemias.



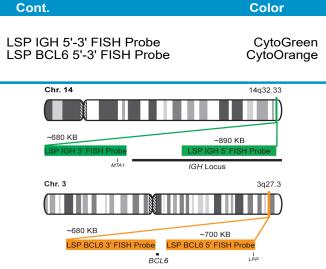
#### IGH-BCL6 Dual Fusion/Translocation FISH Probe Kit



Cat. No. CT-PAC224-10-GO (100 μL)

# IGH-BCL6 Dual Fusion/Translocation FISH Probe Kit

The IGH-BCL6 Fusion/Translocation FISH Probe Kit is designed to detect rearrangements involving the human IGH locus and BCL6 gene, located on chromosome bands 14q32.33 and 3q27.3, respectively. Rearrangements between the two regions have been observed in B-cell lymphomas and leukemias.









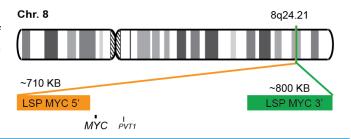
Cat. No. CT-PAC228-10-OG (100 μL)

# MYC Break Apart LR FISH Probe Kit

The MYC Break Apart LR FISH Probe Kit probe set is designed to detect rearrangements involving regions of the human MYC gene located on chromosome band 8q24. In addition to revealing breaks, which lead to translocation of parts or all of the gene or its fusion to other genes, the probe set can also be used to identify other MYC aberrations such as deletions, amplifications or chromosome 8 hyperdiploidy.

Rearrangements and abnormal expression of the MYC gene – also known as MRTL, MYCC, c-Myc or bHLHe39 – have been observed in Burkitt's Lymphoma and other hematological malignancies, myeloma, as well as breast, cervical, colon, ovarian and other tumor types.

Cont.	Color
LSP MYC 5' LR FISH Probe	CytoOrange
LSP MYC 3' LR FISH Probe	CytoGreen



# IGL Break Apart FISH Probe Kit

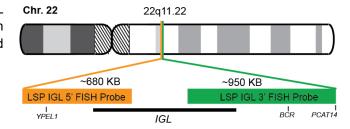


Cat. No. CT-PAC229-10-OG (100 μL)

# IGL Break Apart FISH Probe Kit

The IGL Break Apart FISH Probe Kit is designed to detect rearrangements in the human IGL locus mapping to chromosome band 22q11.22. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other IGL aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the IGL gene – also known as IGL@ or IGLC6 - have been observed in various B-cell lymphoma subtypes and other malignancies.

Cont.	Color
LSP IGL 5' FISH Probe	CytoOrange
LSP IGL 3' FISH Probe	CytoGreen







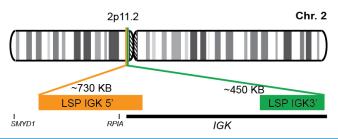


Cat. No. CT-PAC230-10-OG (100 μL)

# IGK Break Apart FISH Probe Kit

The IGK Break Apart FISH Probe Kit is designed to detect rearrangements in the human IGK locus mapping to chromosome band 2p11.2. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other IGK aberrations such as deletions or amplifications. Rearrangements and abnormal expression of the IGK gene – also known as IGK@ - have been observed in various B-cell lymphoma subtypes and other malignancies.

Cont.	Color
LSP IGK 5' FISH Probe	CytoOrange
LSP IGK 3' FISH Probe	CytoGreen



#### IGK-MYC Dual Fusion/Translocation LR FISH Probe Kit



Cat. No. CT-PAC231-10-GO (100 μL)

# IGK-MYC Dual Fusion/Translocation LR FISH Probe Kit

The IGK-MYC Dual Fusion/Translocation LR (long-range) FISH Probe Kit is designed to detect rearrangements involving the human IGK and MYC genes, located on chromosome bands 2p11.2 and 8q24.21, respectively.

IGK is also known as IGK@. MYC is also known as MRTL, MYCC, c-Myc or bHLHe39. Rearrangements involving portions of these two genes have been observed in several B-cell lymphoma subtypes, especially Burkitt lymphoma, and other malignancies.

Cont.	Color
LSP IGK 5'-3' FISH Probe LSP MYC 5'-3' LR FISH Probe	CytoGreen CytoOrange
2p11.2	Chr. 2
-730 KB -450 LSP IGK 5	0 KB LSP IGK3
Chr. 8	
Cnr. 8	8q24.21
~710 KB	~800 KB
LSP MYC 5'	LSP MYC 3'

MYC PVT1





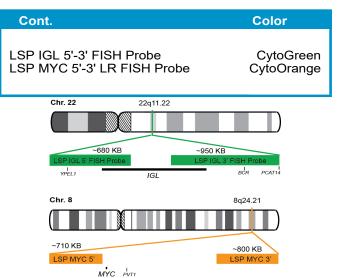


Cat. No. CT-PAC232-10-GO (100 μL)

#### IGL-MYC Dual Fusion/Translocation LR FISH Probe Kit

The IGL-MYC Dual Fusion/Translocation LR (long-range) FISH Probe Kit is designed to detect rearrangements involving the human IGL and MYC genes, located on chromosome bands 22q11.22 and 8q24.21, respectively. IGL is also known as IGL@ or IGLC6. MYC is also known as MRTL, MYCC, c-Myc or bHLHe39.

IGL is also known as IGL@ or IGLC6. MYC is also known as MRTL, MYCC, c-Myc or bHLHe39. Rearrangements involving portions of these two genes have been observed in several B-cell lymphoma subtypes, especially Burkitt lymphoma, and other malignancies.



#### TP63/CCP3 FISH Probe Kit

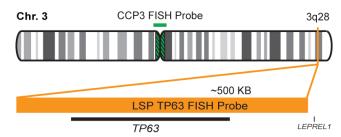


Cat. No. CT-PAC253-10-OG (100 μL)

# TP63/CCP3 FISH Probe Kit

The TP63/CCP3 FISH Probe Kit is designed to detect the human TP63 gene located on chromosome band 3q28, along with the number of chromosome 3 copies per cell. Abnormal expression of the TP63 gene – also known as AIS, KET, LMS, NBP, RHS, p40, p51, p63, EEC3, OFC8, p73H, p73L, SHFM4, TP53L, TP73L, p53CP, TP53CP, B(p51A) or B(p51B) – has been observed in various cancer types.

Cont.	Color
LSP TP63 FISH Probe	CytoOrange
CCP3 FISH Probe	CytoGreen





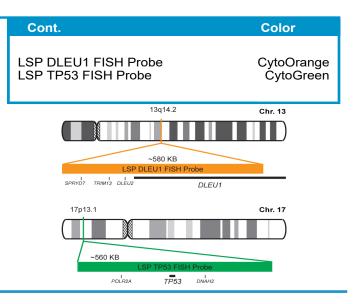




Cat. No. CT-PAC255-10-OG (100 µL)

## DLEU1/TP53 FISH Probe Kit

The DLEU1/TP53 FISH Probe Kit is designed to detect the human DLEU1 and TP53 genes located on chromosome bands 13q14.2 and 17p13.1, respectively. Rearrangements and abnormal expression of the DLEU1 gene region - also known as BCMS, DLB1, LEU1, LEU2, XTP6, BCMS1, DLEU2, LINC00021 or NCRNA00021 - and the TP53 gene also known as P53, BCC7, LFS1 or TRP53 - have been observed in B-cell chronic lymphocytic leukemia (CLL) and other malignancies.



#### IGH/CCP14 FISH Probe Kit



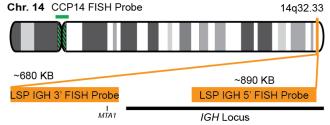
Cat. No. CT-PAC279-10-OG (100 μL)

# IGH/CCP14 FISH Probe Kit

The IGH/CCP14 FISH Probe Kit is designed to detect the human IGH gene located on chromosome band 14q32.33, along with the number of chromosome 14 copies per cell.

Abnormal expression, mutations or rearrangements of the IGH gene – also known as IGD1, IGH@, IGHJ, IGHV, IGHD@, IGHJ@, IGHV@, IGH.1@ or IGHDY1 - has been observed in many acute and chronic hematological malignancies.

Cont.	Color
LSP IGH 5'-3' FISH Probe	CytoOrange
CCP14 (Pericentromeric) FISH Probe	CytoGreen







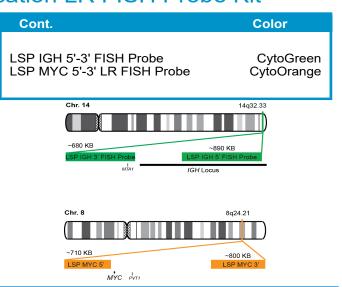


Cat. No. CT-PAC367-10-GO (100 µL)

# IGH-MYC Dual Fusion/Translocation LR FISH Probe Kit

The IGH-MYC Dual Fusion/Translocation LR (long-range) FISH Probe Kit is designed to detect rearrangements involving the human IGH and MYC genes, located on chromosome bands 14q32.33 and 8q24.21, respectively.

IGH is also known as IGD1, IGH@, IGHJ, IGHV, IGHD@, IGHJ@, IGHV@, IGH.1@ or IGHDY1 MYC is also known as MRTL, MYCC, c-Myc or bHLHe39. Rearrangements involving portions of these two genes have been observed in several B-cell lymphoma subtypes, especially Burkitt lymphoma, and other malignancies.



# CSF1R Break Apart FISH Probe Kit



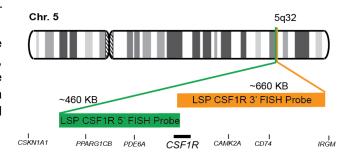
Cat. No. CT-PAC387-10-GO (100 µL)

# CSF1R Break Apart FISH Probe Kit

The CSF1R Break Apart FISH Probe Kit is designed to detect rearrangements in the human CSF1R locus mapping to chromosome band 5q32. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other CSF1R aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the CSF1R gene – also known as IFMS, CSFR, FIM2, HDLS, C-FMS, CD115, CSF-1R, ot M-CSF-R - have been observed in acute megakaryoblastic leukemia (AMKL), myelodysplastic syndrome (MDS), breast and cervical and other cancers.

Cont.	Color
LSP CSF1R 5' FISH Probe	CytoGreen
LSP CSF1R 3' FISH Probe	CytoOrange







# Microdeletion Syndromes

Angelman syndrome: UBE3A/CCP15 FISH Probe Kit	133
Cri du chat syndrome: CTNND2/EGR1 FISH Probe Kit	133
DiGeorge syndrome: D22S75/ARSA FISH Probe Kit	134
DiGeorge syndrome: TBX1/ARSA FISH Probe Kit	134
Miller-Dieker syndrome: PAFAH1B1/CCP17 FISH Probe Kit	135
Prader-Willi syndrome: SNRPN/CCP15 FISH Probe Kit	135
Prader-Willi syndrome: SNRPN/PML FISH Probe Kit	136
Rubinstein-Taybi syndrome: CREBBP Break Apart FISH Probe Kit	136
SHOX/CCPX, CCPY FISH Probe Kit	137
Shprintzen-Goldberg syndrome (1p36 Region): SKI/CCP1 FISH Probe Kit	137
Sotos Region: NSD1/D5S23, D5S721 FISH Probe Kit	138
SRY/CCPX FISH Probe Kit	138
Turner syndrome: XIST/CCPX FISH Probe Kit	139
Watson syndrome/Neurofibromatosis type I microdeletion syndrome: NF1	
CCP17	139
Williams syndrome: ELN/CCP7 FISH Probe Kit	140





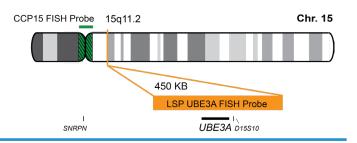


Cat. No. CT-PAC407-10-OG (100 μL)

# UBE3A/CCP15 FISH Probe Kit

The UBE3A/CCP15 FISH Probe Kit is designed to detect the human UBE3A gene located on chromosome band 15q11.2, along with the number of chromosome 15 copies per cell. Abnormalities of this gene – also known as AS, ANCR, E6-AP, HPVE6A, EPVE6AP – have been observed in cervical cancer as well as in breast and prostate cancer. Deletion or mutations of this gene are found in Angelman syndrome, a severe neurological disorder.

Cont.	Color
LSP UBE3A FISH Probe	CytoOrange
CCP15 FISH Probe	CytoGreen



Cri du chat syndrome: CTNND2/EGR1 FISH Probe Kit



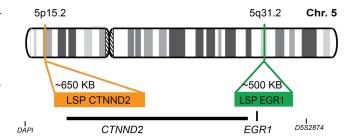
Cat. No. CT-PAC437-10-OG (100 μL)

# CTNND2/EGR1 FISH Probe Kit

The CTNND2/EGR1 FISH Probe Kit is designed to detect the human *CTNND2* gene located on chromosome band 5p15.2, and the *EGR1* gene on chromosome band 5q31.2. Abnormal expression of the *CTNND2* gene – also known as *GT24* or *NPRAP* - has been observed in brain prostate carcinoma and other solid tumor types. Abnormalities in *EGR1* – also known as *ERBB*, *HER1*, *mENA*, *ERBB1*, *PIG61* or *NISBD2* — have been observed in myeloid malignancies, fibrosarcoma, lung, brain, breast, skin, prostate liver and various other cancer types.

Deletions in the *CTNND2* gene region are found in the rare genetic disorder Cri du chat syndrome.

Cont.	Color
LSP CTNND2 FISH Probe	CytoOrange
LSP EGR1 FISH Probe	CytoGreen







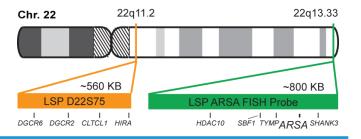


Cat. No. CT-PAC403-10-OG (100 µL)

# D22S75/ARSA FISH Probe Kit

The D22S75/ARSA FISH Probe Kit is designed to detect the human D22S75 (N25) region, located on chromosome band 22q11.2 and the ARSA gene region on chromosome band 22q13.33. Abnormalities in both regions are found in DiGeorge Syndrome and other conditions.

Cont.	Color
LSP D22S75 FISH Probe	CytoOrange
LSP ARSA FISH Probe	CytoGreen



DiGeorge syndrome: TBX1/ARSA FISH Probe Kit

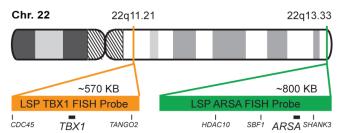


Cat. No. CT-PAC401-10-OG (100 µL)

# TBX1/ARSA FISH Probe Kit

The TBX1/ARSA FISH Probe Kit is designed to detect the human TBX1 and ARSA genes located on chromosomes band 22q11.21 and 22q13.33, respectively. Abnormalities in TBX1 gene region – also named CAFS, CATCH22, CTHM, DGCR, DGS, DORV, TBX1C, TGA, VCF or VCFS – are found in DiGeorge Syndrome and other conditions.

Cont.	Color
LSP TBX1 FISH Probe	CytoOrange
LSP ARSA FISH Probe	CytoGreen









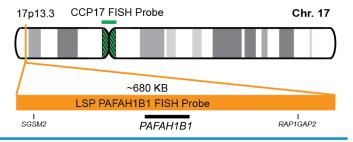
Cat. No. CT-PAC193-10-OG (100 μL)

# PAFAH1B1/CCP17 FISH Probe Kit

The PAFAH1B1/CCP17 FISH Probe Kit is designed to detect the human PAFAH1B1 gene located on chromosome band 17p13.3, along with the number of chromosome 17 copies per cell. Abnormal expression of this gene – also known as MDS, LIS1, LIS2, MDCR, NudF, PAFAH – has been observed in small-cell lung carcinoma and several other solid tumor types.

Loss of the gene is observed in Miller-Dieker Syndrome patients.

Cont.	Color
LSP PAFAH1B1 FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen



Prader-Willi syndrome: SNRPN/CCP15 FISH Probe Kit

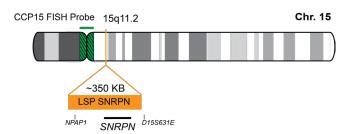


Cat. No. CT-PAC408-10-OG (100 μL)

# SNRPN/CCP15 FISH Probe Kit

The SNRPN/CCP15 FISH Probe Kit is designed to detect the human SNRPN gene located on chromosome band 15q11.2, along with the number of chromosome 15 copies per cell. Altered expression of this gene – also known as SMN, PWCR, SM-D, sm-N, RT-LI, HCERN3, SNRNP-N, SNURF-SNRPN – has been observed in some solid tumor types. Paternal copy deletion of this gene is observed in Prader-Willi Syndrom (PWS) individuals.

Cont.	Color
LSP SNRPN FISH Probe CCP15 FISH Probe	CytoOrange CytoGreen







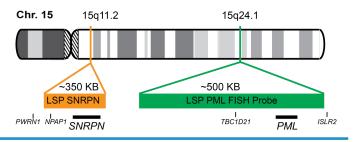


Cat. No. CT-PAC417-10-OG (100 µL)

# SNRPN/PML FISH Probe Kit

The SNRPN/PML FISH Probe Kit is designed to detect the human SNRPN gene located on chromosome band 15q11.2, along with the human PML gene located on chromosome band 15q24.1. Altered expression of the SNRPN gene – also known as SMN, PWCR, SM-D, sm-N, RT-LI, HCERN3, SNRNP-N, SNURF-SNRPN – has been observed in some solid tumor types. Paternal copy deletion of this gene is observed in Prader-Willi Syndrom (PWS) individuals. Rearrangements involving PML are found in various malignancies.

Cont.	Color
LSP SNRPN FISH Probe	CytoOrange
LSP PML 5' FISH Probe	CytoGreen



Rubinstein-Taybi syndrome: CREBBP Break Apart FISH Probe Kit



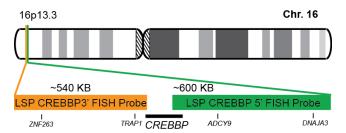
Cat. No. CT-PAC340-10-GO (100 μL)

# **CREBBP Break Apart FISH Probe Kit**

The CREBBP Break Apart FISH Probe Kit is designed to detect rearrangements in the human CREBBP gene located on chromosome band 16p13.3. In addition to revealing breaks, which can lead to translocation of parts of the gene, inversion, or its fusion to other genes, the probe set can also be used to identify other CREBBP aberrations such as deletions or amplifications.

Rearrangements and abnormal expression of the CREBBP gene – also known as CBP, RSTS, KAT3A or RSTS1– have been observed in acute nonlymphocytic leukemia (AML) and other malignancies and in some developmental disorders.

Cont.	Color
LSP CREBBP 5' F	SH Probe CytoGreen
LSP CREBBP 3' F	SH Probe CytoOrange





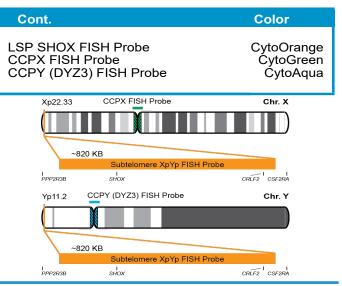




Cat. No. CT-PAC395-10-OGA (100 µL)

# SHOX/CCPX,CCPY FISH Probe Kit

The SHOX/CCPX, CCPY FISH Probe Kit is designed to detect the human SHOX gene located on chromosome bands Xp22.33 and Yp11.2, along with the numbers of chromosome X and chromosome Y copies per cell. Abnormal expression of the SHOX gene – also known as SS, GCFX, PHOG, SHOXY – has been observed in various tumor types.



Shprintzen-Goldberg syndrome (1p36 Region): SKI/CCP1 FISH Probe Kit



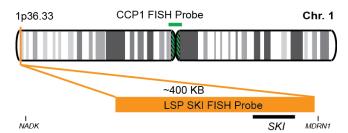
Cat. No. CT-PAC258-10-OG (100 µL)

# SKI/CCP1 FISH Probe Kit

The SKI/CCP1 FISH Probe Kit is designed to detect the human SKI gene located on chromosome band 1p36.33-p36.32, along with the number of chromosome 1 copies per cell. Deregulation of this gene – also known as SGS or SKV – has been observed in some lymphomas and in bone, kidney, gastric and other solid tumor types.

Mutations in the gene have been found in the very rare Shprintzen-Goldberg syndrome.

Cont.	Color
LSP SKI FISH Probe	CytoOrange
CCP1 FISH Probe	CytoGreen







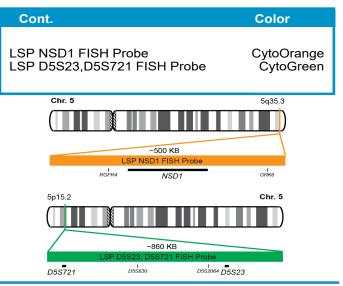


Cat. No. CT-PAC372-10-OG (100 µL)

# NSD1/D5S23, D5S721 FISH Probe Kit

The NSD1/D5S23,D5S721 FISH Probe Kit is designed to detect the human NSD1 gene located on chromosome band 5q35.3, along with the human D5S23, D5S721 region located on chromosome band 5p15.2.

Abnormal expression or rearrangements of the NSD1 gene – also known as STO, KMT3B, SOTOS, ARA267 or SOTOS1 - have been observed in acute myeloid leukemia (AML), other neoplasms and some inherited defects such as Sotos syndrome and Weaver syndrome.



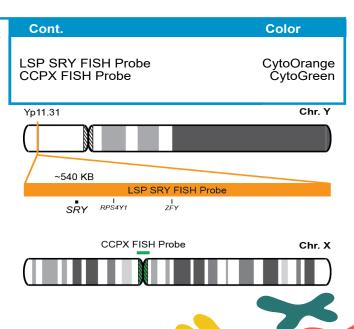
#### SRY/CCPX FISH Probe Kit



Cat. No. CT-PAC402-10-OG (100 μL)

# SRY/CCPX FISH Probe Kit

The SRY/CCPX FISH Probe Kit is designed to detect the human SRY gene located on chromosome band Yp11.31, along with the number of chromosome X copies per cell. Rearrangements in the SRY gene region – also known as TDF, TDY, SRXX1 or SRXY1 – have been observed in a number of heritable and somatic conditions.





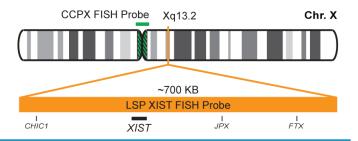


Cat. No. CT-PAC020-10-OG (100 μL)

# XIST/CCPX FISH Probe Kit

The XIST/CCPX FISH Probe Kit is designed to detect the human XIST gene located on chromosome band Xq13.2, along with the number of chromosome X copies per cell. Rearrangements in the XIST gene region – also known as SXI1, swd66, DXS1089, DXS399E, LINC00001 or NCRNA00001 – have been observed in a number of familial and other conditions.

Cont.	Color
LSP XIST FISH Probe	CytoOrange
CCPX FISH Probe	CytoGreen



Watson syndrome/Neurofibromatosis type I microdeletion syndrome: NF1/CCP17



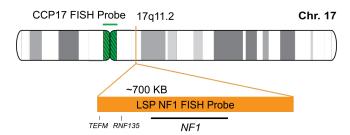
Cat. No. CT-PAC389-10-OG (100 μL)

# NF1/CCP17 FISH Probe Kit

The NF1/CCP17 FISH Probe is designed to detect the human NF1 gene located on chromosome band17q11.2, along with the number of chromosome 17 copies per cell. Abnormal expression of this gene – also known as WSS, NFNS, VRN - has been observed in some juveline leukemias, gastrointestinal stromal tumors and other tumor types.

Mutations and deletions at the NF1 locus are observed in Watson Syndrome and in Neurofibromatosis type I microdeletion syndrome individuals.

Cont.	Color
LSP NF1 FISH Probe	CytoOrange
CCP17 FISH Probe	CytoGreen







# Williams syndrome: ELN/CCP7 FISH Probe Kit

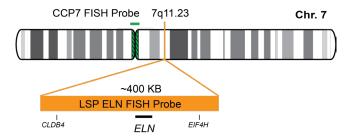


Cat. No. CT-PAC453-10-OG (100 µL)

# **ELN/CCP7 FISH Probe Kit**

The ELN/CCP7 FISH Probe KIT is designed to detect the human ELN gene located on chromosome band 7q11.23, along with the number of chromosome 7 copies per cell. Abnormal expression due to gains or losses of this gene – also known as WS; WBS; SVAS; ADCL1– has been observed in prostate carcinomaas well as other malignancies. The ELN gene is frequently deleted in Williams Syndrome (WS) individuals.

Cont.	Color
LSP ELN FISH Probe	CytoOrange
CCP7 FISH Probe	CytoGreen







# Pre-/Postnatal

CCP13, 18, 21, X, Y FISH Probe Kit	142
SRY/CCPX FISH Probe Kit	142
XIST/CCPX FISH Probe Kit	143
CUX1/VIPR2 FISH Probe Kit	143
CCP13/CCP21 FISH Probe Kit	144
CCP18/CCPX/CCPY FISH Probe Kit	144







Cat. No. CT-PAC404-10-GAOGO (100

# CCP13, 18, 21, X, Y FISH Probe Kit

The CCP13,18,21,X,Y FISH Probe Kit is designed to simultaneously determine the copy number of human chromosomes 13, 18, 21, X and Y, and to detect copy number aberrations in these chromosomes, in metaphase and interphase blood and tissue cells. Trisomies of chromosomes 13, 18 and 21 as well as sex chromosome aneuploidies are the by far most common prenatal chromosomal aberrations. While the panel can also reveal other copy number defects including mono-, tetra- and polyploidies and other anomalies, a diverse range of specific abnormalities may not be detected by this panel such as localized inversions balanced intrachromosomal translocations, centromeric polymorphisms, some microdeletions or microduplications, and other defect types.

Cont.	Color
Vial 1: CCP13 (13q14) FISH Probe CCP21 (21q22) FISH Probe Vial 2: CCP18 (Pericentromeric) FISH Probe CCPX FISH Probe	CytoGreen CytoOrange CytoAqua CytoGreen CytoOrange
Chr. 13 13q14  -650 KB  -050 K	
Chr. 21 21q22 2  -510 KB  -510 KB	
DEGRe CCP18 (D18Z1) FISH Probe Chr. 18	
CCPX (DXZ)) PISH Probe Chr. X  CCPY (DYZ3) FISH Probe Chr. Y	

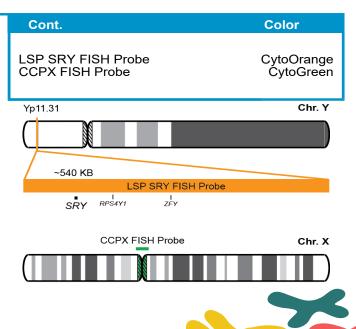
#### SRY/CCPX FISH Probe Kit



Cat. No. CT-PAC402-10-OG (100 μL)

# SRY/CCPX FISH Probe Kit

The SRY/CCPX FISH Probe Kit is designed to detect the human SRY gene located on chromosome band Yp11.31, along with the number of chromosome X copies per cell. Rearrangements in the SRY gene region – also known as TDF, TDY, SRXX1 or SRXY1 – have been observed in a number of heritable and somatic conditions.





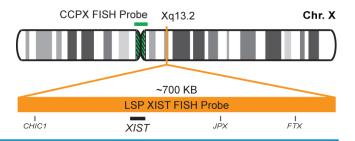


Cat. No. CT-PAC020-10-OG (100 µL)

## XIST/CCPX FISH Probe Kit

The XIST/CCPX FISH Probe Kit is designed to detect the human XIST gene located on chromosome band Xq13.2, along with the number of chromosome X copies per cell. Rearrangements in the XIST gene region – also known as SXI1, swd66, DXS1089, DXS399E, LINC00001 or NCRNA00001 – have been observed in a number of familial and other conditions.

Cont.	Color
LSP XIST FISH Probe	CytoOrange
CCPX FISH Probe	CytoGreen



#### CUX1/VIPR2 FISH Probe Kit

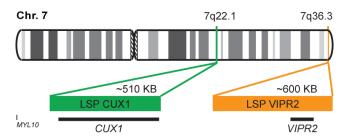


Cat. No. CT-PAC162-10-GO (100 µL)

# CUX1/VIPR2 FISH Probe Kit

The CUX1/VIPR2 FISH Probe Kit is designed to detect the human CUX1 gene located on chromosome band 7q22.1 and the VIPR2 gene on chromosome band 7q36.3. Expression of the CUX1 gene – also known as CDP, CUX, p75, CASP, CDP1, COY1, Clox, p100, p110, p200, CUTL1, GOLIM6, CDP/Cut, Cux/CDP or Nbla10317 – has been observed elevated in pancreatic, breast and other cancers. Duplications and other anomalies in the region of the VIPR2 gene – also called VPAC2, VPAC2R, VIP-R-2, VPCAP2R, PACAP-R3, DUP7q36.3, PACAP-R-3, C16DUPq36.3 – are associated with schizophrenia, prenatal malformations and some intestinal malignancies.

Cont.	Color
LSP CUX1 FISH Probe	CytoGreen
LSP VIPR2 FISH Probe	CytoOrange





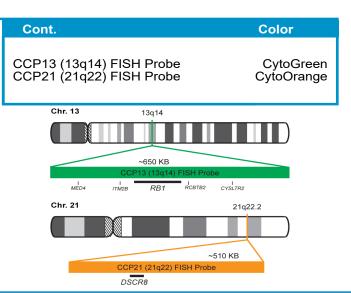




Cat. No. CT-PAC212-10-GO (100 µL)

#### CCP13/CCP21 FISH Probe Kit

The CCP13/CCP21 FISH Probe Kit is designed to simultaneously determine the copy number of human chromosomes 13 and 21, and to detect copy number aberrations in these chromosomes, in metaphase and interphase blood and tissue cells. Trisomies of chromosomes 13 and 21 are common prenatal chromosomal aberrations. While the panel can also reveal other copy number defects including mono-, tetra- and polyploidies and other anomalies, a diverse range of specific abnormalities may not be detected by this panel such as localized inversions or balanced intrachromosomal translocations, centromeric polymorphisms, some microdeletions microduplications, and other defect types.



#### CCP18/CCPX/CCPY FISH Probe Kit



Cat. No. CT-PAC214-10-AGO (100 μL)

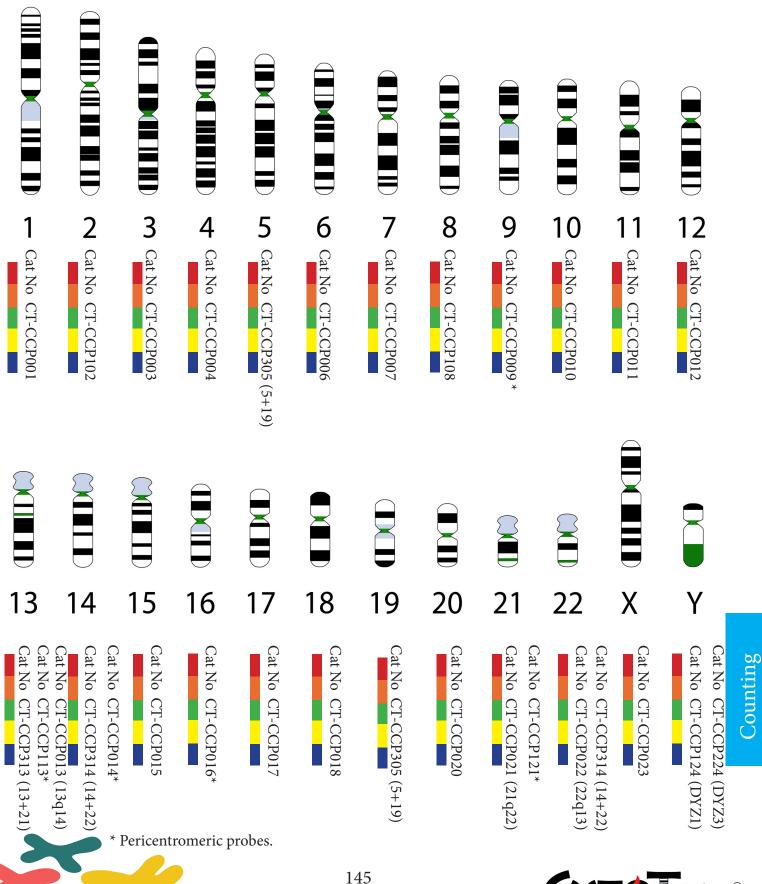
## CCP18/CCPX/CCPY FISH Probe Kit

The CCP18/CCPX/CCPY FISH Probe Kit is designed to simultaneously determine the copy number of human chromosomes 18, X and Y, and to detect copy number aberrations in these chromosomes, in metaphase and interphase blood and tissue cells. Trisomies of chromosome 18 as well as chromosome aneuploidies are common prenatal chromosomal aberrations. While the panel can also reveal other copy number defects including mono-, tetra- and polyploidies and other anomalies, a diverse range of specific abnormalities may not be detected by this panel such as localized inversions or balanced intrachromosomal translocations. centromeric polymorphisms. some microdeletions microduplications, and other defect types.

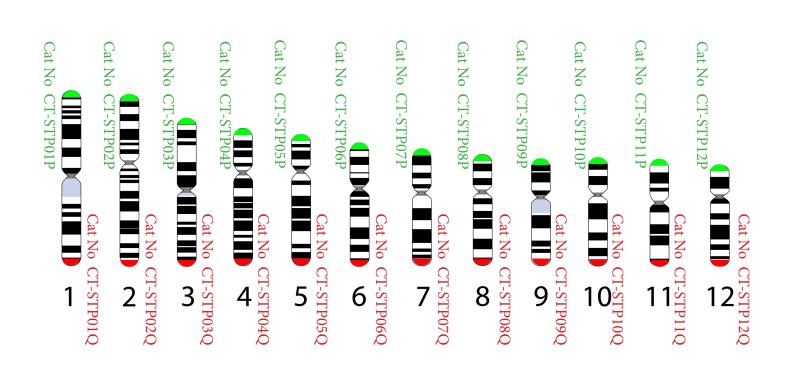
# CCP18 (Pericentromeric) FISH Probe CCPX FISH Probe CCPY (DYZ3) FISH Probe CCP18 (D18Z1) FISH Probe CCP18 (D18Z1) FISH Probe Chr. 18 CCPX (DXZ1) FISH Probe Chr. X CCPY (DYZ3) FISH Probe Chr. Y

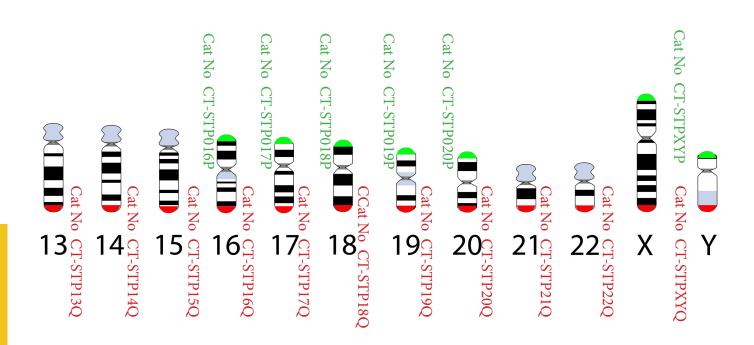


# Human Chromosome Counting Probes (CCP)



CYTO EST®



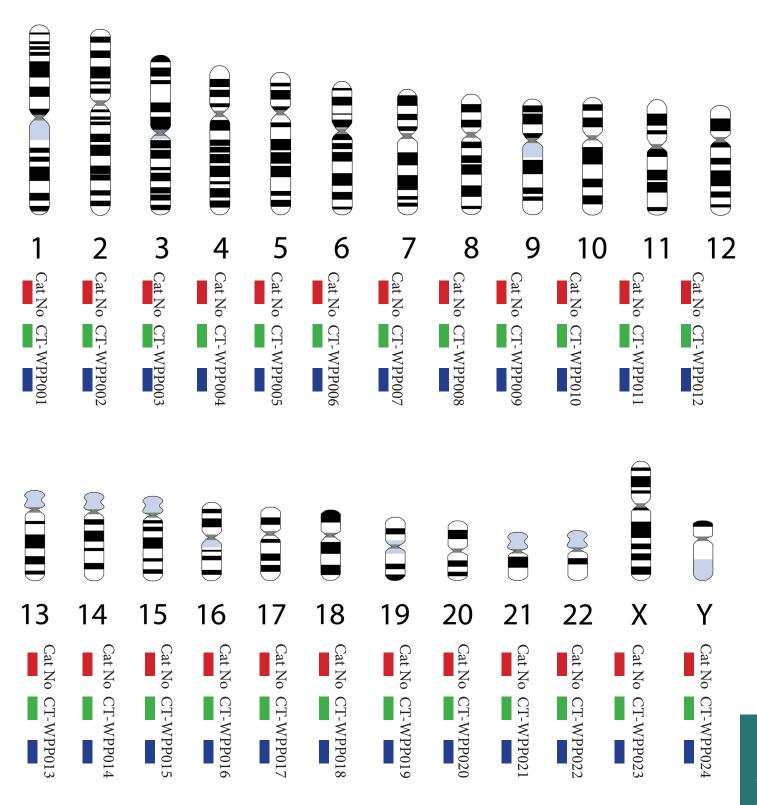






# Painting

# Human Whole Chromosome Painting Probes (WPP)







# Other Reagents and Accessories

FISH Reagent Kit Cat No. CT -ACC101

CytoTest's FISH Reagents kit is designed to wash and stain tissue samples after hybridzation for optimal performance of CytoTest's FISH probes.

Reagents	Quantity	Storage
20x SSC Salt	1 x 66g	20°C to 25°C
DAPI Couterstain	1 x 300 ul	2°C to 6°C (avoid light)
NP-40	2 x 2ml	20°C to 25°C

DAPI Counterstain can be ordered seperatly.

Paraffin Pretreatment Kit CT -ACC112

CytoTest's Paraffin Sample Pretreatment kit is optimized to treat formalin-fixed paraffin-embedded tissue sections for use in flourencence in situ hybridization with CytoTest's FISH probes.

Reagents	Quantity	Storage
Pretreatment Solution	5 x 50 ml	2°C to 25°C
Protease Buffer	5 x 62.5 ml	2°C to 25°C
Protease	5 x 250 mg	-20°C to 8°C

For more information visit - www.cytotest.com





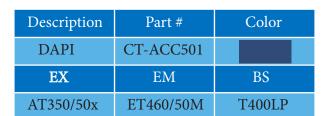
# **Filters**

Description	Part #	Color
CytoTest Green	CT-ACC505	
EX	EM	BS
ET485/25x	ET252/30M	T505lpxr

Description	Part #	Color	
CytoTest Aqua	CT-ACC506		
EX	EM	BS	
ET436/20x	ET480/30M	T455lp	



Description	Part #	Color
CytoTest Orange	CT-ACC503	
EV	TN	DC
EX	EM	BS



Description	Part #	Color
CytoTest Red	CT-ACC502	
EX	EM	BS
ET592/21x	ET630/30M	T610lpxr

Description	otion Part # Color	
GOLD	CT-ACC504	
EX	EM	BS
ET546/10x	ET572/23M	T556LPXR











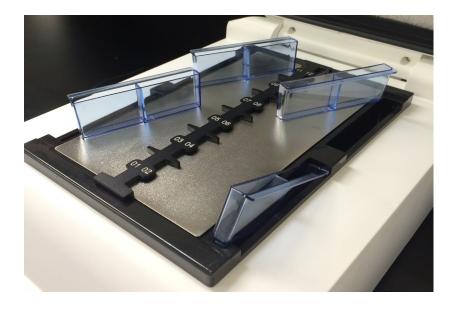
# Instrument



The CytoHYB CT500 Denaturation and hybridization instrument is a programmable system for automated processing in slide-based FISH procedures. The machine is equipped with several dis-



tinct advantageous features, including convenient touchscreen programming, integral USB port, unparalleled heating speed and accuracy, minimal temperature variation, and higher humidity range. Moreover, a unique design with liquid grooves allows for convenient humidification and stable humidity control in the chamber interior. In addition, the unit is easy to clean, and there is no need for disposable foam strips, or for any other accessory consumable that have to be frequently replaced, meaning eco friendly! Accepting a broad range of sample types, and equipped with single slide guides that keep slides in place and allow for one-handed placement and removal, the low cost unit drastically reduces hands-on time without compromising precision and reproducibility. The product is suitable for a wide variety of denaturation and hybridization experimental strategies, with four distinct modes of operation: Denaturation/hybridization, Hybridization, Custom, and in situ PCR processes. The integrated heating and water tank and secure-sealed heated lid provide experimental consistency to the system, which can process up to 12 slides simultaneously.









#### Product use and Procedure

# Procedure and Principle

Fluorescence In situ hybridization (FISH) is a powerful technique designed to detect presence or absence, location, integrity and amount of DNA or RNA sequences in tissues, cells or on chromosomes. FISH is based on the detection of specific sequences by pairing of bases (hybridization) on complementary single strands of nucleic acid. Here, one of the strands is a fluorescently labeled sequence fragment (probe) that binds only to those parts of the genome with sequences highly or completely complementary to the probe sequence, and the other strand is present in the sample material that is to be analyzed. Accordingly, in situ hybridization starts with preparing the sample to be analyzed and with preparing the probe. The typically double-stranded DNA in the sample has to be melted (denatured) into single strands, and the probe has to be fluorescently labeled to enable detection.

Flourophore	Ex. (nm)	Em. (nm)	Compatability w/ other dyes
TM CytoRed	583	605	SpectrumRedPropidiumiodine (543-614)
TM CytoOrange	557	575	SpectrumOrange
TM CytoGold	523	549	SpectrumGold
TM CytoGreen	495	518	SpectrumGreen- FlouresceinIsothiocy- ante (FITC)
TM CytoAqua	422	471	SpectrumAqua
TM CytoBlue	402	421	SpectrumBlue (400-450)
DAPI	358	461	















# Warnings and Precautions

Excessive exposure to light can photobleach the probe's fluorophores. Please take appropriate precautions when handling all reagents and slides containing the probe to avoid direct and prolonged light exposure. It is recommended to comply with the instructions described in this Instruction for Use when handling and using CytoTest FISH probes. Experiment operators should wear suitable protective clothing, gloves and eye/face protection. Reagents used in FISH experiment may irritate eyes and skin; avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Inappropriate handling during transportation or storage can potentially degrade or impair the performance of the product. Any compromised products should be discarded according to any applicable law or regulations in your institution, region and/or country, and the reagents should not be used in any tests. If you have any concerns about degradation in the product's quality or performance, please contact the manufacturer or your regional distributor(s).

# Storage and Handling

CytoTest FISH probes should be stored at -15°C to -25°C and protected from light. Avoid repeated freeze/thaw cycles. Please check the expiration date on the product label before use. These storage and handling conditions apply to both opened and unopened products







# FISH Procedure for FFPE Specimen 1/3

Pic. 1.1



Pic. 1.2



Pic. 1.3



Pic. 1.4



Pic. 1.5



Pic. 1.6



Pic. 1.7



Pic. 1.9



Pic. 1.10

#### Slide Pretreatment

1. Immerse slides in xylene at RT for 10 minutes. Repeat twice with fresh xylene each time. (Pic. 1.1)

- 2. Dehydrate slides in 100% ethanol at RT for 5 minute. Repeation with fresh 100% ethanol. (Pic. 1.2)
- 3. Air dry slides for 2-5 minutes, if desired.
- 4. Immerse slides in pre-warmed Pretreatment Solution at 80°C for 10 minutes. (Pic. 1.3)
- 5. Immerse slides in purified water at RT for 3 minute.

#### **Protease Pretreatment**

- 1. Immerse slides in Protease Solution at 37°C for 10-60 minutes (depending on the condition of samples) and monitor the condition of cells under a light microscope. (Pic. 1.4)
- 2. Immerse slides in purified water at RT for 3 minutes.
- 3. Air dry slides for 2-5 minutes.

#### Slide Dehydration

- 1. Immerse slides in 70% ethanol for 3 minutes. 2. Immerse slides in 90% ethanol for 3 minutes. 3. Immerse slides in 100% ethanol for 3 minutes. (Pic. 1.5)
- 4. Air dry slides.

#### **Probe Preparation**

1. Pre-warm the probe at RT for 20-30 minutes. 2. Briefly vortex and spin down the

#### Co-denaturation & Hybridization

- 1. Apply 10 µl of the probe on each hybridization area and cover with a 22mm x 22mm coverslip. Seal coverslip(s) with rubber cement (Pic. 1.6)
- 2. Co-denature slides with probe at 72°C for 5 minutes. (Pic. 1.7)
- 3. Place slides in a pre-warmed humidified hybridization chamber and incubate slides at 37°C overnight (16 hours).

#### Post-hybridization Wash

- 1. Mark each hybridization area on the back of the slides with a diamond-tip pen.
- 2. Carefully remove rubber cement.
- 3. Immerse slides in Post-hybridization Wash Solution at RT to loosen the coverslips. Shake gently to allow the coverslips to detach unaided; do not pull the coverslips off.
- 4. Immerse slides in pre-warmed Post- hybridization Wash Solution at 72°C for 2 minutes. (Pic. 1.8)

#### Slide Dehydration

- 1. Immerse slides in 70% ethanol for 2 minutes.
- 2. Immerse slides in 90% ethanol for 2 minutes.
- 3. Immerse slides in 100% ethanol for 2 minutes. (Pic. 1.9)
- 4. Air dry slides in the dark.

#### Visualization

- 1. Apply DAPI counterstain and cover slides with coverslips. (Pic. 1.10)
- 2. Examine slides under a fluorescence microscope with proper filter sets.





# FISH Procedure for Cytological Specimens 2/3

Pic. 2.1



Pic. 2.2



Pic. 2.3



Pic. 2.4



Pic. 2.5



Pic. 2.6



Pic. 2.7

Pic. 2.8



Pic. 2.9



Pic. 2.10



#### Slide Pretreatment

1. Equilibrate slides in 2X SSC Solution at RT for 2 minutes. (Pic. 2.1)

2. Immerse slides in pre-warmed Pepsin Working Solution at 37°C for 1-10 minutes (depending on the condition of samples) and monitor the condition of cells under a light microscope (Pic. 2.2)

3. Wash slides in 1XPBS Solution at RT for 5 minutes.

4. Post-fix slides in Formaldehyde Solution at RT for 5 minutes.

5. Wash slides in 1XPBS Solution at RT for 5 minutes. (Pic. 2.3)

#### Slide Dehydration

1. Immerse slides in 70% ethanol for 3 minutes.

2. Immerse slides in 90% ethanol for 3 minutes.

3. Immerse slides in 100% ethanol for 3 minutes.(Pic. 2.4)

4. Air dry slides.

#### **Probe Preparation**

1. Pre-warm probes at RT for 20~30minutes.

2. Briefly vortex and spin down probes.

Co-denaturation & Hybridization

1. Apply  $10\mu l$  of the probe on each hybridization area and cover with a  $22 \text{ mm} \times 22 \text{ mm}$  coverslip. Seal coverslip(s) with rubber cement. (Pic. 2.5)

2. Co-denature slides with probe at 72°C for 5 minutes.(Pic. 2.6)

3. Place slides in a pre-warmed humidized hybridization chamber and incubate slides at 37°C overnight (16 hours).

#### Post-hybridization Wash

1. Mark each hybridization area on the back of the slides with a diamond-tip pen.

2. Carefully remove rubber cement.

3. Immerse slides in 2X SSC Solution at RT to loose the coverslips. Shake gently to allow the coverslips to detach unaided; do not pull the coverslips off. (Pic. 2.7)

4. Immerse slides in pre-warmed Post-hybridizationWashSolution1 at 72°C for 1 minute. (Pic. 2.8)

5. Immerse slides in Post-hybridizationWashSolution2 at room temperature for 2 minutes. (Pic. 2.9)

#### Visualization

1. Apply DAPI counterstain and cover slides with cover slips.(Pic. 2.10)

2. Examine slides under a fluorescence microscope with proper filter sets.





### FISH Procedure Buffer Information 3/3

Reagents Required but Not Provided:

• Paraffin Pretreatment Reagent Kit (Cat No: CT- ACC112-05):o Pretreatment Solution (50 ml): store at room temperature (RT) o Protease Buffer (62.5 ml, pH 2.0): store at RTo Protease (250 mg): Lyophilized, store at -20°C

• FISH Reagent Kit (Cat No: CT-ACC101-20):o 20X Sodium Chloride-Sodium Citrate Buffer (SSC) Salt: store at RT, avoid humidity o 4,6-diamidino-2- phenylindole (DAPI) Counterstain: store at 4°C in the darko IGEPAL CA-630, or Nonidet P-40): store at RT

• Xylene: store at RT

• Ethanol (100%): store at RT

• Purified water: store at room RT

• Concentrated (12N) HCl: store at room RT



1. 20X SSC Solution (pH 7.0)			
Reagents	Amount Added	Final Concentration	
SSC Salt	66 g	20X	
Deionized H <sub>2</sub> 0 (dH <sub>2</sub> 0)	250 ml	-	
TOTAL	250 ml	-	

2. Protease Solution			
Reagents	Amount Added	Final Concentration	
Protease, lyophilized	250 mg	4 mg/ml	
Protease Buffer	62.5 ml	-	
TOTAL	62.5 ml	-	

<b>3.</b> 90% Ethanol				
Reagents	Amount Added	Final Concentration		
Ethanol (100%)	90 ml	90%		
dH <sub>2</sub> 0	10 ml	-		
TOTAL	100 ml	-		

<b>4.</b> 70% Ethanol				
Reagents	Amount Added	Final Concentration		
Ethanol (100%)	70 ml	70%		
dH <sub>2</sub> 0	30 ml	-		
TOTAL	100 ml	-		

<b>5.</b> Post-hydridization Wash Solution (pH 7.0)				
Reagents	Amount Added	Final Concentration		
20X SSC Solution	10 ml	2X		
NP-40	300 μΙ	0.3%		
dH <sub>2</sub> 0	90 ml	-		
TOTAL	100 ml	-		





# Troubleshooting

Possible Causes	Suggested Solutions		
Distorted Chromosome Morphology			
Specimen over-denatured	Reduce the slide denaturing time		
H	Iigh Background		
Slides are too dirty	Immerse the slides in 100% ethanol and wipe with clean paper		
Too much cell debris	Wash cell pellets with fresh fixative several times before dropping on the slide		
Inadequate washing after hybridization	Remove the cover slip and wash again		
tion	Check the PH and temperature of the wash solution		
	Change washing solution		
Wea	k or Invisible Signals		
Probe expired or quenched	Check expiration date of the probes		
	Store the probes at -20 degree Celsius in the dark		
Air bubble in the hybridization area	Clean the cover slips before use		
	Apply cover slips carefully to avoid making bubbles		
Probe solution dried out during hybridization	Make sure the cover slip is sealed by rubber cement completely		
·	Add sufficient water in the moist chamber		
Inadequate denaturing of probes	Make sure the probes are denatured at 75 degrees Celsius		
Probes are too dilute	Use more concentrated probes		
Inadequate denaturing of slides	Increase the denaturing temperature		
	Increase the denaturing time		
	Change denaturing solution		
Incorrect filter used	Select proper filters		
	Select proper color of the probes for the filters		
Exhausted filters	Change the filters according to the product instructions		
Exhausted mercury lamp	Change the mercury lamp according to product instruction		





# Legal Terms

#### **Terms of Sale**

#### 1. Delivery

Delivery terms shall be FOB CytoTest shipping point, freight will be added to the invoice. Title and risk of loss shall pass to Customer upon delivery to the carrier. CytoTest reserves the right to make delivery in installments, all such installments to be separately invoiced and paid for when due per invoice, without regard to subsequent deliveries. Delay in delivery of any installment shall not relieve Customer of Customer's obligations to accept remaining deliveries.

#### 2. Inspection and Returns

Upon your receipt of goods, you shall inspect the goods and notify our Customer Services Department of any claims for shortages, defects or damages. If you fail to so notify us within ten days after you receive the goods, the goods shall conclusively be deemed to conform to these Terms and Conditions and to have been accepted by you. Authorization for all product returns must be approved by our Customer Services Department and a return authorization number given to you prior to the return of goods. Not all items will be authorized for return, due to temperature and packing requirements. Items authorized for return must arrive at our facilities in a state satisfactory for resale to be eligible for product credit. A restocking charge of 20% or \$25 (whichever is greater) may be charged on returns that are not the result of any error or fault of ours. Shipping charges will not be credited. Goods may not be returned for credit more than 30 days after your receipt of the goods.

#### 3. Credits and Refunds

At our discretion, we may issue a product credit or refund for the product value and shipping charges. No product credit shall be available for use if a past due balance is outstanding on the account. Any product credit not used within six months of the date of issue shall expire.

#### 4. Product Descriptions

The product descriptions provided in this catalog are for general informational purposes only, and are not warranties or promises regarding the products, their features or performance. If you are interested in further information regarding product pricing, license or sales terms, please contact CytoTest's customer service.

#### 5. Warranties

CytoTest warrants that the product will meet specifications listed. At CytoTest's discretion, free replacement of any nonconforming product will be made if CytoTest is notified within 30 days of product receipt. This warranty limits CytoTest's liability to the cost of replacement of the product in question only. CytoTest provides no other warranty, express or implied, and is not liable or responsible for any indirect or incidental damages or loss as a consequence of product use. No warranty is given for products used after the printed expiration date or for products not stored or used according to the product use specifications given. If you experience difficulty with any CytoTest product, please contact CytoTest Technical Support promptly.

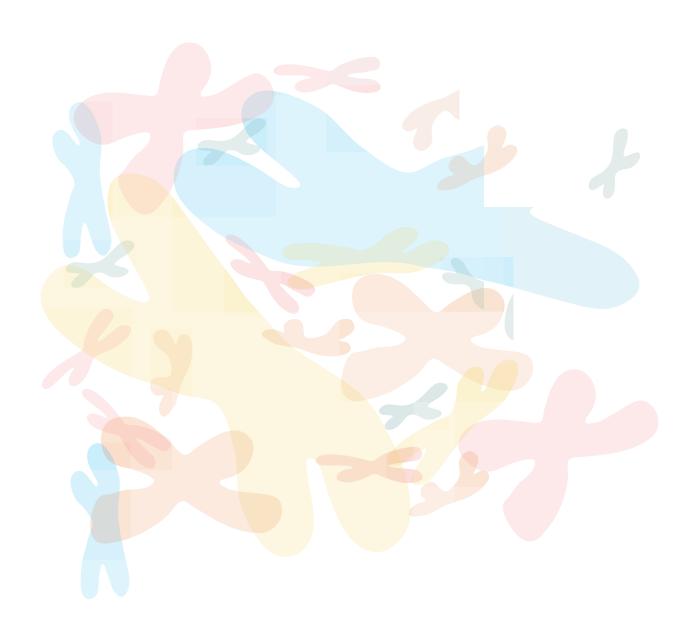
#### 6. Price Change Policy

CytoTest reserves the right to change pricing on its products at its discretion. Should the customer note a non-promotional price change within 30 days of placing an order, they may contact CytoTest Customer Support for assistance.





# **Index by Name**







<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
FISH Probe Kits (PAC)		BCL3 Break Apart FISH Probe Kit	CT-PAC186
ABL1 Break Apart FISH Probe Kit	CT-PAC115	BCL6 Break Apart FISH Probe Kit	CT-PAC207
ABL2 Break Apart FISH Probe Kit	CT-PAC342	BCOR Break Apart FISH Probe Kit	CT-PAC185
ABL2/CCP1 FISH Probe Kit	CT-PAC039	BCOR-CCNB3 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC235
ACP1/CCP2 FISH Probe Kit	CT-PAC260	BCR-ABL1 Dual Fusion/	CT-PAC302
AFF1 Break Apart FISH Probe Kit	CT-PAC330	Translocation FISH Probe Kit	OT DA 0440
ALK Break Apart FISH Probe Kit	CT-PAC009	BCR-ABL1/ASS1 Tri-color Fusion/Translocation FISH Probe Kit	CT-PAC110
APC/CCP1 FISH Probe Kit	CT-PAC297	BDH1/CCP3 FISH Probe Kit	CT-PAC263
AR/CCPX FISH Probe Kit	CT-PAC116	BIRC3-MALT1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC062
ARHGAP39/CCP8 FISH Probe Kit	CT-PAC270	BOK/CCP2 FISH Probe Kit	CT-PAC261
ARHGEF7/CCP13 FISH Probe Kit	CT-PAC399	BRAF Break Apart FISH Probe Kit	CT-PAC120
ASPSCR1-TFE3 Fusion/ Translocation FISH Probe Kit	CT-PAC061	BRAF-KIAA1549 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC325
ASS1/CCP9 FISH Probe Kit	CT-PAC111	BRAF/CCP7 FISH Probe Kit	CT-PAC121
ASS1/SMAD6 FISH Probe Kit	CT-PAC171	BRCA1/CCP17 FISH Probe Kit	CT-PAC430
ATM/CCP11 FISH Probe Kit	CT-PAC352	BRCA2/CCP13 FISH Probe	CT-PAC431
ATM/GLI1 FISH Probe Kit	CT-PAC117	Kit C11ORF95 Break Apart FISH	CT-PAC425
ATRX/CCPX FISH Probe Kit	CT-PAC118	Probe Kit	
AXIN1/CCP16 FISH Probe Kit	CT-PAC281	C19MC/TPM4 FISH Probe Kit	CT-PAC033
B3GAT1/CCP11 FISH Probe Kit	CT-PAC276	CAMTA1 Break Apart FISH Probe Kit	CT-PAC317
BAP1/CCP3 FISH Probe Kit	CT-PAC369	CAMTA1/CCP1 FISH Probe Kit	CT-PAC318
BCL2 Break Apart FISH Probe Kit	CT-PAC206	CARS Break Apart FISH Probe Kit	CT-PAC046
BCL2L1/CCP20 FISH Probe Kit	CT-PAC119	CARS/CCP11 FISH Probe Kit	CT-PAC047
BCL2L2/CCP14 FISH Probe Kit	CT-PAC368	CBFB Break Apart FISH Probe Kit	CT-PAC328
INC		CBFB-MYH11 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC306





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
CCDC6-RET Fusion/Translo-	CT-PAC079	CDKN2C/CCP1 FISH Probe Kit	CT-PAC064
cation FISH Probe Kit CCNB3 Break Apart FISH	CT-PAC227	CDKN2C/CKS1B FISH Probe Kit	CT-PAC126
Probe Kit CCND1 Break Apart FISH	CT-PAC209	CDX2/CCP13 FISH Probe Kit	CT-PAC313
Probe Kit	07.0400	CHD1/CCP5 FISH Probe Kit	CT-PAC105
CCND1/CCP11 FISH Probe Kit	CT-PAC189	CHD1/D5S23, D5S721 FISH Probe Kit	CT-PAC103
CCND2 Break Apart FISH Probe Kit	CT-PAC241	CHD5/CCP1 FISH Probe Kit	CT-PAC049
CCND3 Break Apart FISH Probe Kit	CT-PAC187	CHD5/S100A10 FISH Probe Kit	CT-PAC168
CCP13, 16, 18, 21, 22 FISH Probe Kit	CT-PAC250	CHEK1/CCP11 FISH Probe Kit	CT-PAC299
CCP13, 18, 21, X, Y FISH Probe Kit	CT-PAC404	CHFR/CCP12 FISH Probe Kit	CT-PAC278
CCP18/CCPX/CCPY FISH	CT-PAC214	CHL1/CCP3 FISH Probe Kit	CT-PAC262
Probe Kit CCPX,Y FISH Probe Kit	CT-PAC406	CIC Break Apart FISH Probe Kit	CT-PAC236
CD274, PDCD1LG2/CCP9 FISH Probe Kit	CT-PAC240	CIC-DUX4 Dual Fusion/Trans- location FISH Probe Kit	CT-PAC237
CD274/CCP9 FISH Probe Kit	CT-PAC238	CISD2/CCP4 FISH Probe Kit	CT-PAC024
CD274/PDCD1LG2/CCP9 FISH Probe Kit	CT-PAC362	CKS1B/CCP1 FISH Probe Kit	CT-PAC361
CD37/ZNF443 FISH Probe Kit	CT-PAC122	CLIC1/CCP6 FISH Probe Kit	CT-PAC314
CDC34/CD37 FISH Probe Kit	CT-PAC293	COL1A1 Break Apart FISH Probe Kit	CT-PAC065
CDK12/CCP17 FISH Probe Kit	CT-PAC123	COL1A1-PDGFB Dual Fusion/ Translocation FISH Probe Kit	CT-PAC066
CDK14/CCP7 FISH Probe Kit	CT-PAC124	COL1A1-PDGFB Fusion/ Translocation FISH Probe Kit	CT-PAC200
CDK14/CUX1/CCP7 FISH Probe Kit	CT-PAC125	CREBBP Break Apart FISH Probe Kit	CT-PAC340
CDK4/CCP12 FISH Probe Kit	CT-PAC048	CRLF2 Break Apart FISH	CT-PAC114
CDK6/CCP7 FISH Probe Kit	CT-PAC331	Probe Kit CRLF2/CCPX FISH Probe Kit	CT-PAC252
CDKN2A/CCP3,7,17 FISH Probe Kit	CT-PAC026	CSF1R Break Apart FISH	CT-PAC387
CDKN2A/CCP9 FISH Probe Kit	CT-PAC025	Probe Kit CSF1R/D5S23, D5S721 FISH Probe Kit	CT-PAC355





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
CSF1R/EGR1 FISH Probe Kit	CT-PAC127	DEK/CCP6 FISH Probe Kit	CT-PAC129
CSF1R/EGR1/TERT FISH Probe Kit	CT-PAC179	DLEU1/RASA3 FISH Probe Kit	CT-PAC165
CSNK1D/CCP17 FISH Probe Kit	CT-PAC284	DLEU1/TP53 FISH Probe Kit	CT-PAC255
CTNND2/EGR1 FISH Probe Kit	CT-PAC437	DLEU1/ZBTB16 FISH Probe Kit	CT-PAC161
CUX1/CCP7 FISH Probe Kit	CT-PAC128	DNAJC5/CCP20 FISH Probe Kit	CT-PAC288
CUX1/VIPR2 FISH Probe Kit	CT-PAC162	DOCK8/CCP9 FISH Probe Kit	CT-PAC271
CUX1/VIPR2/CCP7 FISH	CT-PAC163	EGFR/CCP7 FISH Probe Kit	CT-PAC011
Probe Kit D13S25/LAMP1 FISH Probe Kit	CT-PAC359	EGR1/D5S23, D5S721 FISH Probe Kit	CT-PAC353
D13S25/TP53 FISH Probe Kit	CT-PAC363	EHMT1/CCP9 FISH Probe Kit	CT-PAC272
D13S319/LAMP1 FISH Probe	CT-PAC360	ELN/CCP7 FISH Probe Kit	CT-PAC453
Kit	OT DA 0005	ELN/CUX1 FISH Probe Kit	CT-PAC454
D13S319/TP53 FISH Probe Kit	CT-PAC365	EML4-ALK Fusion/Transloca-	CT-PAC010
D1S3148/CCP1 FISH Probe Kit	CT-PAC259	tion FISH Probe Kit EML4-ALK Tri-color Fusion/	CT-PAC226
D20S108/CCP8 FISH Probe	CT-PAC356	Translocation FISH Probe Kit Report Figure 1. Translocation FISH Figure 1. Translocation FISH Probe Kit Report Figure 1. Translocation FISH Fish Fish Fish Fish Fish Fish Fish Fish	ote: This product is only available in some countries/rease contact your local sales representatives.)  CT-PAC416
Kit D20S108/CCP9 FISH Probe	CT-PAC158	Translocation FISH Probe Kit	C1-FAC410
Kit	OT DA 0 400	EPOR Break Apart FISH Probe Kit	CT-PAC203
D22S75/ARSA FISH Probe Kit	CT-PAC403	ERBB2/CCP17 FISH Probe	CT-PAC001
D4S2390/CCP4 FISH Probe Kit	CT-PAC265	Kit ERBB2/TEKT3 FISH Probe	CT-PAC050
D7S486/CCP7 FISH Probe Kit	CT-PAC357	Kit	
D7S522/CCP7 FISH Probe Kit	CT-PAC358	ERBB2/TOP2A/CCP17 FISH Probe Kit	CT-PAC007
DCC/CCP18 FISH Probe Kit	CT-PAC021	ERBB3/CCP12 FISH Probe Kit	CT-PAC029
DDIT3 Break Apart FISH Probe Kit	CT-PAC057	ERBB4/CCP2 FISH Probe Kit	CT-PAC030
DDIT3/CCP12 Tri-color Break Apart FISH Probe Kit	CT-PAC058	ERG Break Apart FISH Probe Kit	CT-PAC151
DEK Break Apart FISH Probe Kit	CT-PAC347	ERICH1-AS1/CCP8 FISH Probe Kit	CT-PAC269
DEK-NUP214 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC109	ETV1 Break Apart FISH Probe Kit	CT-PAC152





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
ETV4 Break Apart FISH Probe Kit	CT-PAC153	FLI1/CCP11 FISH Probe Kit	CT-PAC377
ETV6 Break Apart FISH Probe Kit	CT-PAC327	FN1-FGFR1 Fusion/Translo- cation FISH Probe Kit	CT-PAC084
ETV6-NTRK3 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC245	FN1-FGFR1 Tri-color Fusion/ Translocation FISH Probe Kit	CT-PAC085
ETV6-RUNX1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC305	FOLR1 Break Apart FISH Probe Kit	CT-PAC350
ETV6-RUNX1 Fusion/Translocation FISH Probe Kit	CT-PAC233	FOLR1/CCP11 FISH Probe Kit	CT-PAC348
EWSR1 Break Apart FISH Probe Kit	CT-PAC054	FOXO1 Break Apart FISH Probe Kit	CT-PAC045
EWSR1-FLI1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC190	FUS Break Apart FISH Probe Kit	CT-PAC053
EWSR1-FLI1 Tri-color Fusion/ Translocation FISH Probe Kit	CT-PAC256	FUS-DDIT3 Fusion/Translocation FISH Probe Kit	CT-PAC077
EXOC2/CCP6 FISH Probe Kit	CT-PAC266	GLI1/CCP12 FISH Probe Kit	CT-PAC134
FANCA/CCP16 FISH Probe Kit	CT-PAC282	GLO1/CCP6 FISH Probe Kit	CT-PAC068
FGF1 Break Apart FISH Probe Kit	CT-PAC159	HLF Break Apart FISH Probe Kit	CT-PAC421
FGFR1 Break Apart FISH	CT-PAC056	HRAS/CCP11 FISH Probe Kit	CT-PAC275
Probe Kit FGFR1/CCP8 FISH Probe Kit	CT-PAC130	IGH Break Apart FISH Probe Kit	CT-PAC201
FGFR2/CCP10 FISH Probe Kit	CT-PAC131	IGH-BCL2 Dual Fusion/Trans- location FISH Probe Kit	CT-PAC221
FGFR3 Break Apart FISH Probe Kit	CT-PAC329	IGH-BCL6 Dual Fusion/Trans- location FISH Probe Kit	CT-PAC224
FGFR4 Break Apart FISH Probe Kit	CT-PAC133	IGH-CCND1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC222
FGFR4/D5S23, D5S721 FISH Probe Kit	CT-PAC132	IGH-CCND3 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC188
FHIT/CCP3 FISH Probe Kit	CT-PAC016	IGH-EPOR Dual Fusion/ Translocation FISH Probe Kit	CT-PAC301
FIP1L1-CHIC2-PDGFRA Tri-color FISH Probe Kit	CT-PAC173	IGH-FGFR3 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC309
FIP1L1/CHIC2 FISH Probe Kit	CT-PAC172	IGH-IRF4/DUSP22 Dual	CT-PAC414
FLCN/CCP17 FISH Probe Kit	CT-PAC028	Fusion/Translocation FISH Probe Kit	
FLI1 Break Apart FISH Probe Kit	CT-PAC218	IGH-MAF Dual Fusion/Trans- location FISH Probe Kit	CT-PAC310





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
IGH-MAF Dual Fusion/Trans- location LR FISH Probe Kit	CT-PAC381	JAZF1/CCP7 FISH Probe Kit	CT-PAC321
IGH-MAFB Dual Fusion/ Translocation FISH Probe Kit	CT-PAC311	KAT6A Break Apart FISH Probe Kit	CT-PAC339
IGH-MALT1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC383	KAT6A-CREBBP Dual Fusion/ Translocation FISH Probe Kit	CT-PAC335
IGH-MYC Dual Fusion/Trans- location FISH Probe Kit	CT-PAC223	KDM5A/CCP12 FISH Probe Kit	CT-PAC277
IGH-MYC Dual Fusion/Trans- location LR FISH Probe Kit	CT-PAC367	KIAA1549 Break Apart FISH Probe Kit	CT-PAC336
IGH-MYC/CCP8 Tri-color Fusion/Translocation FISH	CT-PAC199	KIF5B Break Apart FISH Probe Kit	CT-PAC135
Probe Kit IGH-MYEOV Dual Fusion/	CT-PAC069	KIF5B-RET Fusion/Translocation FISH Probe Kit	CT-PAC076
Translocation FISH Probe Kit	C1-FAC009	KIT/CCP4 FISH Probe Kit	CT-PAC136
IGH-PAX5 Dual Fusion/Trans- location FISH Probe Kit	CT-PAC388	KMT2A Break Apart FISH Probe Kit	CT-PAC326
IGH/CCP14 FISH Probe Kit	CT-PAC279	KMT2A-AFF1 Dual Fusion/	CT-PAC307
IGK Break Apart FISH Probe Kit	CT-PAC230	Translocation FISH Probe Kit KMT2A-AFF1 Fusion/Translo-	CT-PAC220
IGK-IRF4/DUSP22 Dual	CT-PAC415	cation FISH Probe Kit	011710220
Fusion/Translocation FISH Probe Kit		KMT2A-MLLT1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC182
IGK-MYC Dual Fusion/Trans- location LR FISH Probe Kit	CT-PAC231	KMT2A-MLLT3 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC183
IGL Break Apart FISH Probe Kit	CT-PAC229	KMT2A-MLLT4 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC184
IGL-MYC Dual Fusion/Trans- location LR FISH Probe Kit	CT-PAC232	KMT2A/CCP11 FISH Probe Kit	CT-PAC137
ING5/CCP2 FISH Probe Kit	CT-PAC300	KRAS/CCP12 FISH Probe Kit	CT-PAC138
IPO11/AHRR FISH Probe Kit	CT-PAC036	LPL/CCP8 FISH Probe Kit	CT-PAC139
IRF4/DUSP22 Break Apart FISH Probe Kit	CT-PAC181	LSAMP/CCP3 FISH Probe Kit	CT-PAC104
JAK2 Break Apart FISH Probe Kit	CT-PAC174	MAF Break Apart LR FISH Probe Kit	CT-PAC380
JAZF1 Break Apart FISH Probe Kit	CT-PAC320	MALT1 Break Apart FISH Probe Kit	CT-PAC202
JAZF1-CAMTA1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC333	MAML2 Break Apart FISH Probe Kit	CT-PAC438
JAZF1-SUZ12 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC324	MCF2L/LAMP1 FISH Probe Kit	CT-PAC027





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
MCL1/CCP1 FISH Probe Kit	CT-PAC140	MYCN/CCP2 FISH Probe Kit	CT-PAC072
MDM2/CCP12 FISH Probe Kit	CT-PAC019	MYCT1/CCP6 FISH Probe Kit	CT-PAC242
MDM4/CCP1 FISH Probe Kit	CT-PAC386	MYEOV Break Apart FISH	CT-PAC141
MECOM Break Apart FISH Probe Kit	CT-PAC071	Probe Kit  MYEOV/CCP11 FISH Probe	CT-PAC142
MECOM-RUNX1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC170	Kit MYH11 Break Apart FISH Probe Kit	CT-PAC211
MECOM/CCP3 FISH Probe Kit	CT-PAC070	MYH11/CCP16 FISH Probe Kit	CT-PAC254
MEF2D Break Apart FISH Probe Kit	CT-PAC426	NAB2-STAT6 Fusion/Translo- cation FISH Probe Kit	CT-PAC191
MET/CCP7 FISH Probe Kit	CT-PAC014	NCOA4-RET Fusion/Translo-	CT-PAC081
MGEA5 Break Apart FISH Probe Kit	CT-PAC247	cation FISH Probe Kit NF1/CCP17 FISH Probe Kit	CT-PAC389
MKL1 Break Apart FISH Probe Kit	CT-PAC338	NF1/TP53 FISH Probe Kit	CT-PAC369
MLLT1 Break Apart FISH Probe Kit	CT-PAC215	NF2/CCP22 FISH Probe Kit	CT-PAC370
MLLT4 Break Apart FISH Probe Kit	CT-PAC217	NINL/PPP1R16B/CCP9 FISH Probe Kit	CT-PAC216
MN1 Break Apart FISH Probe Kit	CT-PAC112	NKX3-1/CCP8 FISH Probe Kit	CT-PAC102
MN1-ETV6 Fusion/Transloca- tion FISH Probe Kit	CT-PAC113	NONO-TFE3 Fusion/Translo- cation FISH Probe Kit	CT-PAC074
MNX1 Break Apart FISH	CT-PAC040	NOTCH1/MIR4292 FISH Probe Kit	CT-PAC409
Probe Kit  MNX1-ETV6 Dual Fusion/	CT-PAC108	NPM1-ALK Fusion/Transloca- tion FISH Probe Kit	CT-PAC075
Traslocation FISH Probe Kit  MYB Break Apart FISH Probe	CT-PAC055	NSD1/D5S23, D5S721 FISH Probe Kit	CT-PAC372
Kit MYB-NFIB Fusion/Transloca-	CT-PAC083	NSD1/TERT FISH Probe Kit	CT-PAC371
tion FISH Probe Kit		NTRK1 Break Apart FISH Probe Kit	CT-PAC143
MYB/CCP6 FISH Probe Kit	CT-PAC018	NTRK1,2,3 Break Apart FISH	CT-PAC434
MYC Break Apart FISH Probe Kit	CT-PAC208	Probe Kit	CT DA C206
MYC Break Apart LR FISH Probe Kit	CT-PAC228	NTRK2 Break Apart FISH Probe Kit	CT-PAC396
MYC/CCP8 FISH Probe Kit	CT-PAC017	NTRK3 Break Apart FISH Probe Kit	CT-PAC244





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
NUP214 Break Apart FISH Probe Kit	CT-PAC332	PHF1 Break Apart FISH Probe Kit	CT-PAC341
NUP214/CCP9 FISH Probe	CT-PAC144	PIK3CA/CCP3 FISH Probe Kit	CT-PAC012
Kit NUP98 Break Apart FISH	CT-PAC180	PLAG1 Break Apart FISH Probe Kit	CT-PAC243
Probe Kit P2RY8 Break Apart FISH	CT-PAC423	PML-RARA Dual Fusion/ Translocation FISH Probe Kit	CT-PAC304
Probe Kit PAFAH1B1/CCP17 FISH	CT-PAC193	PML-RARA Fusion/Translocation FISH Probe Kit	CT-PAC219
Probe Kit	OT 54 0000	PNOC/CCP8 FISH Probe Kit	CT-PAC145
PAX3 Break Apart FISH Probe Kit		PPARG Break Apart FISH Probe Kit	CT-PAC146
PAX3-FOXO1 Fusion/Translocation FISH Probe Kit	CT-PAC087	PRCC-TFE3 Fusion/Translo- cation FISH Probe Kit	CT-PAC147
PAX5 Break Apart FISH Probe Kit		PRKAR1A-RET Fusion/Trans- location FISH Probe Kit	CT-PAC080
PAX7 Break Apart FISH Probe Kit	CT-PAC088	PRKAR1B/CCP7 FISH Probe	CT-PAC268
PAX7-FOXO1 Fusion/Translo- cation FISH Probe Kit	CT-PAC089	Kit PRMT2/CCP21 FISH Probe	CT-PAC289
PAX8-PPARG Dual Fusion/ Translocation FISH Probe Kit	CT-PAC078	Kit PTEN/CCP10 FISH Probe Kit	CT-PAC101
PBX1 Break Apart FISH Probe Kit	CT-PAC205	PTGS2/CCP1 FISH Probe Kit	CT-PAC006
PCM1 Break Apart FISH Probe Kit	CT-PAC400	PTPRT/CCP20 FISH Probe Kit	CT-PAC148
PCM1-JAK2 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC418	RACK1/D5S23, D5S721 FISH Probe Kit	CT-PAC290
PCSK6/CCP15 FISH Probe Kit	CT-PAC280	RAD51B Break Apart FISH Probe Kit	CT-PAC424
PDCD1/CCP2 FISH Probe Kit	CT-PAC257	RAD51B/CCP14 FISH Probe Kit	CT-PAC429
PDCD1LG2/CCP9 FISH Probe Kit	CT-PAC239	RARA Break Apart FISH Probe Kit	CT-PAC093
PDGFB Break Apart FISH Probe Kit	CT-PAC090	RB1/ATM FISH Probe Kit	CT-PAC364
PDGFRA Break Apart FISH	CT-PAC091	RB1/CCP11 FISH Probe Kit	CT-PAC198
Probe Kit PDGFRA/CCP4 FISH Probe	CT-PAC092	RB1/CCP15 FISH Probe Kit	CT-PAC391
Kit		RB1/CKS1B FISH Probe Kit	CT-PAC366
PDGFRB Break Apart FISH Probe Kit	CT-PAC210	RB1/DLEU1/LAMP1 FISH Probe Kit	CT-PAC412



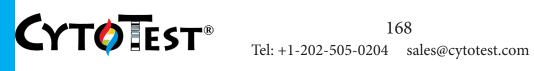


<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
RB1/LAMP1 FISH Probe Kit	CT-PAC354	SEMA5A/CCP5 FISH Probe Kit	CT-PAC043
RB1/RASA3 FISH Probe Kit	CT-PAC291	SFPQ-TFE3 Fusion/Translo-	CT-PAC095
RBFA/CCP18 FISH Probe Kit	CT-PAC286	cation FISH Probe Kit SHOX/CCPX,Y FISH Probe	CT-PAC395
RBM15 Break Apart FISH Probe Kit	CT-PAC337	Kit SKI/CCP1 FISH Probe Kit	CT-PAC258
RBM15-MKL1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC334	SMAD4/CCP18 FISH Probe Kit	CT-PAC298
RELA Break Apart FISH Probe Kit	CT-PAC397	SMAD6/CCP15 FISH Probe Kit	CT-PAC156
RELA/CCP11 FISH Probe Kit	CT-PAC398	SMAD7/CCP18 FISH Probe	CT-PAC312
RET Break Apart FISH Probe	CT-PAC051	Kit	011710012
Kit ROS1 Break Apart FISH	CT-PAC052	SMARCB1 Break Apart FISH Probe Kit	CT-PAC374
Probe Kit  RPN1-MECOM Dual Fusion/	CT-PAC094	SMARCB1/CCP22 FISH Probe Kit	CT-PAC375
Translocation FISH Probe Kit	011710001	SNRPN/CCP15 FISH Probe	CT-PAC408
RPN1/CCP3 FISH Probe Kit	CT-PAC149	Kit	CT DA C 4 4 7
RPPH1/CCP14 FISH Probe	CT-PAC373	SNRPN/PML FISH Probe Kit	CT-PAC417
Kit RREB1/CCP6 FISH Probe Kit	CT-PAC150	SNRPN/PML/CCP15 FISH Probe Kit	CT-PAC419
RREB1/MYB/CCP6/CCND1 FISH Probe Kit	CT-PAC249	SOX12/CCP20 FISH Probe Kit	CT-PAC287
RUNX1 Break Apart FISH	CT-PAC393	SOX2/CCP3 FISH Probe Kit	CT-PAC032
Probe Kit		SOX5/CCP12 FISH Probe Kit	CT-PAC384
RUNX1-RUNX1T1 Dual Fusion/Translocation FISH Probe Kit	CT-PAC303	SRY/CCPX FISH Probe Kit	CT-PAC402
S100A10/CCP1 FISH Probe Kit	CT-PAC195	SS18 Break Apart FISH Probe Kit	CT-PAC082
S100A10/PNOC FISH Probe Kit	CT-PAC160	STAT6 Break Apart FISH Probe Kit	CT-PAC225
SDHB/CCP1 FISH Probe Kit	CT-PAC023	SUZ12 Break Apart FISH Probe Kit	CT-PAC322
SEC63/CCP6 FISH Probe Kit	CT-PAC044	SUZ12/CCP17 FISH Probe Kit	CT-PAC323
SEC63/MYC FISH Probe Kit	CT-PAC169	TAZ/CCPX FISH Probe Kit	CT-PAC436
SEC63/SMAD6 FISH Probe Kit	CT-PAC155	TBL1XR1/CCP3 FISH Probe Kit	CT-PAC251





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
TBX1/ARSA FISH Probe Kit	CT-PAC401	TLX1 Break Apart FISH Probe Kit	CT-PAC194
TCF3 Break Apart FISH Probe Kit	CT-PAC204	TMPRSS2 Break Apart FISH Probe Kit	CT-PAC154
TCF3-HLF Dual Fusion/Translocation FISH Probe Kit	CT-PAC422	TMPRSS2-ERG Fusion/ Translocation FISH Probe Kit	CT-PAC176
TCF3-PBX1 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC308	TMPRSS2-ERG Tri-color Fusion/Translocation FISH	CT-PAC376
TCF3-PBX1 Fusion/Translo- cation FISH Probe Kit	CT-PAC234	Probe Kit TMPRSS2-ETV1 Fusion/	CT-PAC177
TCF3-ZNF384 Dual Fusion/ Translocation FISH Probe Kit	CT-PAC428	Translocation FISH Probe Kit	
TCL1A Break Apart FISH	CT-PAC096	TMPRSS2-ETV4 Fusion/ Translocation FISH Probe Kit	CT-PAC178
Probe Kit	OT 51 000=	TNIK/CCP3 FISH Probe Kit	CT-PAC100
TCTE3/CCP6 FISH Probe Kit	CT-PAC267	TNPO3/CCP7 FISH Probe Kit	CT-PAC410
TERC/CCP3 FISH Probe Kit	CT-PAC166	TOP2A/CCP17 FISH Probe	CT-PAC008
TERC/CCP7 FISH Probe Kit	CT-PAC002	Kit	011710000
TERC/PTGS2/CCP7 FISH	CT-PAC005	TP53/ATM FISH Probe Kit	CT-PAC106
Probe Kit TERC/TERT/CCP7 FISH	CT-PAC003	TP53/ATM/D13S319/LAMP1/ CCP12 FISH Probe Kit	CT-PAC378
Probe Kit		TP53/CCP17 FISH Probe Kit	CT-PAC351
TERT/CCP5 FISH Probe Kit	CT-PAC004	TP53/CD37 FISH Probe Kit	CT-PAC157
TERT/CCP9/CCP15 FISH Probe Kit	CT-PAC390	TP53/MPO FISH Probe Kit	CT-PAC175
TERT/EGR1 FISH Probe Kit	CT-PAC167	TP63/CCP3 FISH Probe Kit	CT-PAC253
TFE3 Break Apart FISH Probe Kit	CT-PAC013	TP73/ABL2, GLTSCR1/ ZNF443 FISH Probe Kit	CT-PAC037
TFEB Break Apart FISH	CT-PAC059	TP73/CCP1 FISH Probe Kit	CT-PAC038
Probe Kit TFG Break Apart FISH Probe Kit	CT-PAC042	TRA Break Apart FISH Probe Kit	CT-PAC107
TFG/CCP3 FISH Probe Kit	CT-PAC197	TRB Break Apart FISH Probe	CT-PAC433
TGFBR3 Break Apart FISH	CT-PAC246	Kit	
Probe Kit	C1-FAC240	TRPV6/CCP7 FISH Probe Kit	CT-PAC349
TGFBR3-MGEA5 Dual Fu-	CT-PAC248	TSC1/CCP9 FISH Probe Kit	CT-PAC031
sion/Translocation FISH Probe Kit		TSC2/CCP16 FISH Probe Kit	CT-PAC022
THOC1/CCP18 FISH Probe Kit	CT-PAC285	TUBGCP2/CCP10 FISH Probe Kit	CT-PAC274





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
TYMS/CCP18 FISH Probe Kit	CT-PAC067	ZNF217/CCP20 FISH Probe Kit	CT-PAC073
UBE3A/CCP15 FISH Probe Kit	CT-PAC407	ZNF384 Break Apart FISH Probe Kit	CT-PAC427
USP6 Break Apart FISH Probe Kit	CT-PAC060	ZNF443/GLTSCR1 FISH Probe Kit	CT-PAC041
USP7/CCP16 FISH Probe Kit	CT-PAC385	ZNF544/ZNF443 FISH Probe Kit	CT-PAC294
VAMP7/CCPX FISH Probe Kit	CT-PAC295	ZNF595/CCP4 FISH Probe Kit	CT-PAC264
VAMP7/CCPY FISH Probe Kit	CT-PAC292	ZNF703/CCP8 FISH Probe Kit	CT-PAC034
VHL/CCP3 FISH Probe Kit	CT-PAC015		
VPS53/CCP17 FISH Probe Kit	CT-PAC283	Subtelomere Probes (STP)	
WHSC1L1/CCP8 FISH Probe Kit	CT-PAC035	1p Subtelomere FISH Probe (SKI)	CT-STP01P
WHSC2/CCP4 FISH Probe Kit	CT-PAC432	1q Subtelomere FISH Probe (D1S3148)	CT-STP01Q
WT1 Break Apart FISH Probe Kit	CT-PAC097	2p Subtelomere FISH Probe (ACP1)	CT-STP02P
WT1-EWSR1 Fusion/Translo- cation FISH Probe Kit	CT-PAC098	2q Subtelomere FISH Probe (BOK)	CT-STP02Q
WT1/CCP11 FISH Probe Kit	CT-PAC099	3p Subtelomere FISH Probe	CT-STP03P
WWOX/CCP16 FISH Probe Kit	CT-PAC315	(CHL1)  3g Subtelomere FISH Probe	CT-STP03Q
WWTR1 Break Apart FISH	CT-PAC296	(BDH1)	01-011 00Q
Probe Kit WWTR1-CAMTA1 Dual	CT-PAC319	4p Subtelomere FISH Probe (ZNF595)	CT-STP04P
Fusion/Translocation FISH Probe Kit	C1-FAC319	4q Subtelomere FISH Probe (D4S2390)	CT-STP04Q
WWTR1/CCP3 FISH Probe Kit	CT-PAC316	5p Subtelomere FISH Probe (AHRR)	CT-STP05P
XIST/CCPX FISH Probe Kit	CT-PAC020	5q Subtelomere FISH Probe (RACK1)	CT-STP05Q
YWHAE Break Apart FISH Probe Kit	CT-PAC063	6p Subtelomere FISH Probe (EXOC2)	CT-STP06P
ZBTB16-RARA Dual Fusion/ Translocation FISH Probe Kit	CT-PAC192	6q Subtelomere FISH Probe (TCTE3)	CT-STP06Q
ZBTB16/CCP11 FISH Probe Kit	CT-PAC196	7p Subtelomere FISH Probe (PRKAR1B)	CT-STP07P
ZMYND11/CCP10 FISH Probe Kit	CT-PAC273	7q Subtelomere FISH Probe (VIPR2)	CT-STP07Q





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
8p Subtelomere FISH Probe (ERICH1-AS1)	CT-STP08P	20p Subtelomere FISH Probe (SOX12)	CT-STP20P
8q Subtelomere FISH Probe (ARHGAP39)	CT-STP08Q	20q Subtelomere FISH Probe (DNAJC5)	CT-STP20Q
9p Subtelomere FISH Probe (DOCK8)	CT-STP09P	21q Subtelomere FISH Probe (PRMT2)	CT-STP21Q
9q Subtelomere FISH Probe (EHMT1)	CT-STP09Q	22q Subtelomere FISH Probe (ARSA)	CT-STP22Q
10p Subtelomere FISH Probe (ZMYND11)	CT-STP10P	XpYp Subtelomere FISH Probe (SHOX, CRLF2)	CT-STPXYP
10q Subtelomere FISH Probe (TUBGCP2)	CT-STP10Q	XqYq Subtelomere FISH Probe (VAMP7)	CT-STPXYQ
11p Subtelomere FISH Probe (HRAS)	CT-STP11P	,	
11q Subtelomere FISH Probe (B3GAT1)	CT-STP11Q	Chromosome Counting Pro	obes (CCP)
12p Subtelomere FISH Probe	CT-STP12P	CCP1 FISH Probe	CT-CCP001
(KDM5A)		CCP2 FISH Probe	CT-CCP102
12q Subtelomere FISH Probe (CHFR)	CT-STP12Q	CCP3 FISH Probe	CT-CCP003
13q Subtelomere FISH Probe (RASA3)	CT-STP13Q	CCP4 FISH Probe	CT-CCP004
14q Subtelomere FISH Probe	CT-STP14Q	CCP5+19 FISH Probe	CT-CCP305
(IGH 5') 15q Subtelomere FISH Probe	CT-STP15Q	CCP6 FISH Probe	CT-CCP006
(PCSK6)	0.0	CCP7 FISH Probe	CT-CCP007
16p Subtelomere FISH Probe (AXIN1)	CT-STP16P	CCP8 FISH Probe	CT-CCP108
16q Subtelomere FISH Probe (FANCA)	CT-STP16Q	CCP9 (Pericentromeric) FISH Probe	CT-CCP009
17p Subtelomere FISH Probe (VPS53)	CT-STP17P	CCP10 FISH Probe	CT-CCP010
17q Subtelomere FISH Probe	CT-STP17Q	CCP11 FISH Probe	CT-CCP011
(CSNK1D)		CCP12 FISH Probe	CT-CCP012
18p Subtelomere FISH Probe (THOC1)	CT-STP18P	CCP13 (13q14) FISH Probe	CT-CCP013
18q Subtelomere FISH Probe (RBFA)	CT-STP18Q	CCP13 (Pericentromeric) FISH Probe	CT-CCP113
19p Subtelomere FISH Probe (CDC34)	CT-STP19P	CCP13+21 FISH Probe	CT-CCP313
19q Subtelomere FISH Probe (ZNF544)	CT-STP19Q	CCP14 (Pericentromeric) FISH Probe	CT-CCP014





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
CCP14+22 FISH Probe	CT-CCP314	LSP AHRR FISH Probe	CT-LSP031
CCP15 FISH Probe	CT-CCP015	LSP ALK 3' FISH Probe	CT-LSP086
CCP16 (Pericentromeric) FISH Probe	CT-CCP016	LSP ALK 5' FISH Probe	CT-LSP085
CCP17 FISH Probe	CT-CCP017	LSP APC FISH Probe	CT-LSP398
CCP18 FISH Probe	CT-CCP018	LSP AR FISH Probe	CT-LSP218
CCP20 FISH Probe	CT-CCP020	LSP ARHGAP39 FISH Probe	CT-LSP360
CCP21 (21q22) FISH Probe	CT-CCP021	LSP ARHGEF7 FISH Probe	CT-LSP464
CCP21 (Pericentromeric)	CT-CCP121	LSP ARSA FISH Probe	CT-LSP047
FISH Probe CCP22 (22q13) FISH Probe	CT-CCP022	LSP ASPSCR1 5' FISH Probe	CT-LSP195
CCPX FISH Probe	CT-CCP023	LSP ASS1 FISH Probe	CT-LSP204
CCPY (DYZ1) FISH Probe	CT-CCP124	LSP ATM FISH Probe	CT-LSP050
CCPY (DYZ3) FISH Probe	CT-CCP224	LSP ATRX FISH Probe	CT-LSP220
,	CT-CCP092	LSP AXIN1 FISH Probe	CT-LSP370
Telomere FISH Probe (Human pan-telomeric)	C1-CCP092	LSP B3GAT1 FISH Probe	CT-LSP366
Centromere FISH Probe (Human pan-centromeric)	CT-CCP046	LSP BAP1 FISH Probe	CT-LSP430
		LSP BCL2 3' FISH Probe	CT-LSP116
Locus Specific Probes (LS	P)	LSP BCL2 5' FISH Probe	CT-LSP115
LSP ABL1 3' FISH Probe	CT-LSP212	LSP BCL2 5'-3' FISH Probe	CT-LSP181
LSP ABL1 5' FISH Probe	CT-LSP211	LSP BCL2L1 FISH Probe	CT-LSP221
LSP ABL1 FISH Probe	CT-LSP179	LSP BCL2L2 FISH Probe	CT-LSP431
LSP ABL2 3' FISH Probe	CT-LSP425	LSP BCL3 3' FISH Probe	CT-LSP281
LSP ABL2 5' FISH Probe	CT-LSP424	LSP BCL3 5' FISH Probe	CT-LSP280
LSP ABL2 FISH Probe	CT-LSP033	LSP BCL6 3' FISH Probe	CT-LSP118
LSP ACP1 FISH Probe	CT-LSP349	LSP BCL6 5' FISH Probe	CT-LSP117
LSP AFF1 3' FISH Probe	CT-LSP142	LSP BCL6 5'-3' FISH Probe	CT-LSP182
LSP AFF1 5' FISH Probe	CT-LSP141	LSP BCOR 3' FISH Probe	CT-LSP320
LSP AFF1 5'-3' FISH Probe	CT-LSP304	LSP BCOR 5' FISH Probe	CT-LSP319





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP BCOR 5'-3' FISH Probe	CT-LSP321	LSP CCDC6 FISH Probe	CT-LSP174
LSP BCR FISH Probe	CT-LSP178	LSP CCNB1 FISH Probe	CT-LSP480
LSP BDH1 FISH Probe	CT-LSP352	LSP CCNB3 3' FISH Probe	CT-LSP323
LSP BIRC3 FISH Probe	CT-LSP196	LSP CCNB3 5' FISH Probe	CT-LSP322
LSP BOK FISH Probe	CT-LSP350	LSP CCNB3 5'-3' FISH Probe	CT-LSP324
LSP BRAF 3' FISH Probe	CT-LSP224	LSP CCND1 3' FISH Probe	CT-LSP122
LSP BRAF 5' FISH Probe	CT-LSP223	LSP CCND1 5' FISH Probe	CT-LSP121
LSP BRAF 5'-3' FISH Probe	CT-LSP289	LSP CCND1 5'-3' FISH Probe	CT-LSP183
LSP BRAF FISH Probe	CT-LSP222	LSP CCND2 3' FISH Probe	CT-LSP333
LSP BRCA1 FISH Probe	CT-LSP493	LSP CCND2 5' FISH Probe	CT-LSP329
LSP BRCA1 FISH Probe	CT-LSP498	LSP CCND3 3' FISH Probe	CT-LSP283
LSP BRCA2 FISH Probe	CT-LSP494	LSP CCND3 5' FISH Probe	CT-LSP282
LSP BRCA2 FISH Probe	CT-LSP499	LSP CCND3 5'-3' FISH Probe	CT-LSP293
LSP C11ORF95 3' FISH	CT-LSP482	LSP CCNE1 FISH Probe	CT-LSP488
Probe LSP C11ORF95 5' FISH	CT-LSP481	LSP CD274 FISH Probe	CT-LSP330
Probe		LSP CD274, PDCD1LG2 FISH Probe	CT-LSP332
LSP C19MC FISH Probe	CT-LSP026	LSP CD37 FISH Probe	CT-LSP225
LSP CAMTA1 3' FISH Probe	CT-LSP385	LSP CDC34 FISH Probe	CT-LSP376
LSP CAMTA1 5' FISH Probe	CT-LSP386	LSP CDH1 FISH Probe	CT-LSP455
LSP CAMTA1 5'-3' FISH Probe	CT-LSP389	LSP CDH12 FISH Probe	CT-LSP458
LSP CAMTA1 FISH Probe	CT-LSP387	LSP CDK12 FISH Probe	CT-LSP226
LSP CARS 3' FISH Probe	CT-LSP080	LSP CDK14 FISH Probe	CT-LSP227
LSP CARS 5' FISH Probe	CT-LSP079	LSP CDK4 FISH Probe	CT-LSP040
LSP CARS FISH Probe	CT-LSP039	LSP CDK6 FISH Probe	CT-LSP187
LSP CBFB 3' FISH Probe	CT-LSP128	LSP CDKN2A FISH Probe	CT-LSP012
LSP CBFB 5' FISH Probe	CT-LSP127	LSP CDKN2C FISH Probe	CT-LSP068
LSP CBFB 5'-3' FISH Probe	CT-LSP190	LSP CDX2 FISH Probe	CT-LSP403



<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP CHD1 FISH Probe	CT-LSP044	LSP CUX1 FISH Probe	CT-LSP228
LSP CHD5 FISH Probe	CT-LSP041	LSP D13S25 FISH Probe	CT-LSP059
LSP CHEK1 FISH Probe	CT-LSP401	LSP D13S319 FISH Probe	CT-LSP061
LSP CHFR FISH Probe	CT-LSP368	LSP D1S3148 FISH Probe	CT-LSP348
LSP CHIC2 FISH Probe	CT-LSP260	LSP D20S108 FISH Probe	CT-LSP056
LSP CHL1 FISH Probe	CT-LSP351	LSP D22S75 FISH Probe	CT-LSP049
LSP CIC 3' FISH Probe	CT-LSP326	LSP D4S2390 FISH Probe	CT-LSP354
LSP CIC 5' FISH Probe	CT-LSP325	LSP D5S23,D5S721 FISH Probe	CT-LSP053
LSP CIC 5'-3' FISH Probe	CT-LSP327	LSP D7S486 FISH Probe	CT-LSP057
LSP CISD2 FISH Probe	CT-LSP014	LSP D7S522 FISH Probe	CT-LSP058
LSP CKS1B FISH Probe	CT-LSP067	LSP DBC2 FISH Probe	CT-LSP445
LSP CLIC1 FISH Probe	CT-LSP404	LSP DCC FISH Probe	CT-LSP019
LSP COL1A1 3' FISH Probe	CT-LSP150	LSP DDIT3 3' FISH Probe	CT-LSP110
LSP COL1A1 5' FISH Probe	CT-LSP149	LSP DDIT3 5' FISH Probe	CT-LSP109
LSP COL1A1 5'-3' FISH Probe	CT-LSP296	LSP DEK 3' FISH Probe	CT-LSP206
LSP CREBBP 3' FISH Probe	CT-LSP418	LSP DEK 5' FISH Probe	CT-LSP205
LSP CREBBP 5' FISH Probe	CT-LSP417	LSP DEK FISH Probe	CT-LSP229
LSP CREBBP 5'-3' FISH	CT-LSP407	LSP DLEU1 FISH Probe	CT-LSP066
Probe LSP CRLF2 3' FISH Probe	CT-LSP210	LSP DNAJC5 FISH Probe	CT-LSP379
		LSP DOCK8 FISH Probe	CT-LSP361
LSP CRLF2 5' FISH Probe	CT-LSP209	LSP DSCR8 FISH Probe	CT-LSP048
LSP CRLF2 FISH Probe	CT-LSP063	LSP DUX4 FISH Probe	CT-LSP328
LSP CSF1R 3' FISH Probe	CT-LSP449	LSP EGFR FISH Probe	CT-LSP006
LSP CSF1R 5' FISH Probe	CT-LSP448	LSP EGR1 FISH Probe	CT-LSP052
LSP CSF1R FISH Probe	CT-LSP055	LSP EHMT1 FISH Probe	CT-LSP362
LSP CSNK1D FISH Probe	CT-LSP373	LSP ELN FISH Probe	CT-LSP452
LSP CTNND2 FISH Probe	CT-LSP501	LSP EML4 FISH Probe	CT-LSP169





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP EPOR 3' FISH Probe	CT-LSP144	LSP FGFR2 FISH Probe	CT-LSP231
LSP EPOR 5' FISH Probe	CT-LSP143	LSP FGFR3 3' FISH Probe	CT-LSP132
LSP EPOR FISH Probe	CT-LSP185	LSP FGFR3 5' FISH Probe	CT-LSP131
LSP ERBB2 FISH Probe	CT-LSP001	LSP FGFR3 FISH Probe	CT-LSP192
LSP ERBB3 FISH Probe	CT-LSP022	LSP FGFR4 3' FISH Probe	CT-LSP234
LSP ERBB4 FISH Probe	CT-LSP023	LSP FGFR4 5' FISH Probe	CT-LSP233
LSP ERG 3' FISH Probe	CT-LSP094	LSP FGFR4 FISH Probe	CT-LSP232
LSP ERG 5' FISH Probe	CT-LSP093	LSP FHIT FISH Probe	CT-LSP018
LSP ERICH1-AS1 FISH Probe	CT-LSP359	LSP FIP1L1 FISH Probe	CT-LSP259
LSP ETV1 3' FISH Probe	CT-LSP100	LSP FLCN FISH Probe	CT-LSP021
LSP ETV1 5' FISH Probe	CT-LSP099	LSP FLI1 3' FISH Probe	CT-LSP301
LSP ETV4 3' FISH Probe	CT-LSP102	LSP FLI1 5' FISH Probe	CT-LSP300
LSP ETV4 5' FISH Probe	CT-LSP101	LSP FLI1 5'-3' FISH Probe	CT-LSP344
LSP ETV6 3' FISH Probe	CT-LSP126	LSP FLI1 FISH Probe	CT-LSP288
LSP ETV6 5' FISH Probe	CT-LSP125	LSP FN1 5' FISH Probe	CT-LSP177
LSP ETV6 5'-3' FISH Probe	CT-LSP316	LSP FOLR1 3' FISH Probe	CT-LSP428
LSP EWSR1 3' FISH Probe	CT-LSP098	LSP FOLR1 5' FISH Probe	CT-LSP427
LSP EWSR1 5' FISH Probe	CT-LSP097	LSP FOLR1 FISH Probe	CT-LSP303
LSP EWSR1 5'-3' FISH Probe	CT-LSP287	LSP FOXO1 3' FISH Probe	CT-LSP078
LSP EXOC2 FISH Probe	CT-LSP356	LSP FOXO1 5' FISH Probe	CT-LSP077
LSP FANCA FISH Probe	CT-LSP371	LSP FUS 3' FISH Probe	CT-LSP096
LSP FBXW7 FISH Probe	CT-LSP489	LSP FUS 5' FISH Probe	CT-LSP095
LSP FGF1 3' FISH Probe	CT-LSP254	LSP GLI1 FISH Probe	CT-LSP219
LSP FGF1 5' FISH Probe	CT-LSP253	LSP GLO1 FISH Probe	CT-LSP071
LSP FGFR1 3' FISH Probe	CT-LSP108	LSP GLTSCR1 FISH Probe	CT-LSP034
LSP FGFR1 5' FISH Probe	CT-LSP107	LSP HLF 3' FISH Probe	CT-LSP476
LSP FGFR1 FISH Probe	CT-LSP230	LSP HLF 5' FISH Probe	CT-LSP475



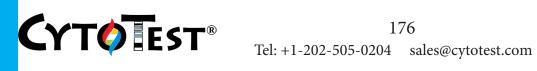


<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP HLF 5'-3' FISH Probe	CT-LSP477	LSP KDM5A FISH Probe	CT-LSP367
LSP HRAS FISH Probe	CT-LSP365	LSP KIAA1549 3' FISH Probe	CT-LSP410
LSP IGH 3' FISH Probe	CT-LSP114	LSP KIAA1549 5' FISH Probe	CT-LSP409
LSP IGH 5' FISH Probe	CT-LSP113	LSP KIAA1549 5'-3' FISH Probe	CT-LSP186
LSP IGH 5'-3' FISH Probe	CT-LSP180	LSP KIF5B 3' FISH Probe	CT-LSP235
LSP IGK 3' FISH Probe	CT-LSP311	LSP KIF5B 5' FISH Probe	CT-LSP171
LSP IGK 5' FISH Probe	CT-LSP310	LSP KIT FISH Probe	CT-LSP236
LSP IGK 5'-3' FISH Probe	CT-LSP313	LSP KMT2A 3' FISH Probe	CT-LSP124
LSP IGL 3' FISH Probe	CT-LSP309	LSP KMT2A 5' FISH Probe	CT-LSP123
LSP IGL 5' FISH Probe	CT-LSP308	LSP KMT2A 5'-3' FISH Probe	CT-LSP266
LSP IGL 5'-3' FISH Probe	CT-LSP314	LSP KMT2A FISH Probe	CT-LSP237
LSP ING5 FISH Probe	CT-LSP402	LSP KRAS FISH Probe	CT-LSP238
LSP IPO11 FISH Probe	CT-LSP030	LSP LAMP1 FISH Probe	CT-LSP060
LSP IRF4/DUSP22 3' FISH Probe	CT-LSP277	LSP LPL FISH Probe	CT-LSP239
LSP IRF4/DUSP22 5' FISH Probe	CT-LSP276	LSP LSAMP FISH Probe	CT-LSP036
LSP IRF4/DUSP22 5'-3' FISH	CT-LSP472	LSP MAF 3' LR FISH Probe	CT-LSP442
Probe	07.1.00004	LSP MAF 5' LR FISH Probe	CT-LSP441
LSP JAK2 3' FISH Probe	CT-LSP261	LSP MAF 5'-3' LR FISH Probe	CT-LSP443
LSP JAK2 5' FISH Probe	CT-LSP262	LSP MAF FISH Probe	CT-LSP193
LSP JAK2 5'-3' FISH Probe	CT-LSP474	LSP MAFB FISH Probe	CT-LSP194
LSP JAZF1 3' FISH Probe	CT-LSP391	LSP MALT1 3' FISH Probe	CT-LSP130
LSP JAZF1 5' FISH Probe	CT-LSP390	LSP MALT1 5' FISH Probe	CT-LSP129
LSP JAZF1 5'-3' FISH Probe	CT-LSP393	LSP MALT1 5'-3' FISH Probe	CT-LSP294
LSP JAZF1 FISH Probe	CT-LSP392	LSP MAML2 3' FISH Probe	CT-LSP503
LSP KAT6A 3' FISH Probe	CT-LSP416	LSP MAML2 5' FISH Probe	CT-LSP502
LSP KAT6A 5' FISH Probe	CT-LSP415	LSP MCF2L FISH Probe	CT-LSP020
LSP KAT6A 5'-3' FISH Probe	CT-LSP406	LSP MCL1 FISH Probe	CT-LSP240





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP MDM2 FISH Probe	CT-LSP010	LSP MNX1 3' FISH Probe	CT-LSP420
LSP MDM4 FISH Probe	CT-LSP446	LSP MNX1 5' FISH Probe	CT-LSP419
LSP MECOM 3' FISH Probe	CT-LSP156	LSP MNX1 5'-3' FISH Probe	CT-LSP421
LSP MECOM 5' FISH Probe	CT-LSP155	LSP MPO FISH Probe	CT-LSP263
LSP MECOM 5'-3' FISH Probe	CT-LSP292	LSP MYB 3' FISH Probe	CT-LSP104
LSP MECOM FISH Probe	CT-LSP072	LSP MYB 5' FISH Probe	CT-LSP103
LSP MEF2D 3' FISH Probe	CT-LSP484	LSP MYB FISH Probe	CT-LSP004
LSP MEF2D 5' FISH Probe	CT-LSP483	LSP MYC 3' FISH Probe	CT-LSP120
LSP MET FISH Probe	CT-LSP016	LSP MYC 3' LR FISH Probe	CT-LSP307
LSP MGEA5 3' FISH Probe	CT-LSP340	LSP MYC 5' FISH Probe	CT-LSP119
LSP MGEA5 5' FISH Probe	CT-LSP341	LSP MYC 5' LR FISH Probe	CT-LSP315
LSP MGEA5 5'-3' FISH Probe	CT-LSP342	LSP MYC 5'-3' FISH Probe	CT-LSP184
LSP MIR4292 FISH Probe	CT-LSP470	LSP MYC 5'-3' LR FISH Probe	CT-LSP312
LSP MKL1 3' FISH Probe	CT-LSP414	LSP MYC FISH Probe	CT-LSP005
LSP MKL1 5' FISH Probe	CT-LSP413	LSP MYCN FISH Probe	CT-LSP073
LSP MKL1 5'-3' FISH Probe	CT-LSP408	LSP MYCT1 FISH Probe	CT-LSP278
LSP MLLT1 3' FISH Probe	CT-LSP268	LSP MYEOV 3' FISH Probe	CT-LSP242
LSP MLLT1 5' FISH Probe	CT-LSP267	LSP MYEOV 5' FISH Probe	CT-LSP241
LSP MLLT1 5'-3' FISH Probe	CT-LSP269	LSP MYEOV FISH Probe	CT-LSP197
LSP MLLT3 3' FISH Probe	CT-LSP271	LSP MYH11 3' FISH Probe	CT-LSP140
LSP MLLT3 5' FISH Probe	CT-LSP270	LSP MYH11 5' FISH Probe	CT-LSP139
LSP MLLT3 5'-3' FISH Probe	CT-LSP272	LSP MYH11 5'-3' FISH Probe	CT-LSP191
LSP MLLT4 3' FISH Probe	CT-LSP274	LSP MYH11 FISH Probe	CT-LSP065
LSP MLLT4 5' FISH Probe	CT-LSP273	LSP NCOA4 FISH Probe	CT-LSP176
LSP MLLT4 5'-3' FISH Probe	CT-LSP275	LSP NF1 FISH Probe	CT-LSP451
LSP MN1 3' FISH Probe	CT-LSP201	LSP NF2 FISH Probe	CT-LSP432
LSP MN1 5' FISH Probe	CT-LSP200	LSP NFIB 3' FISH Probe	CT-LSP170





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP NINL FISH Probe	CT-LSP298	LSP PAX7 3' FISH Probe	CT-LSP160
LSP NKX3-1 FISH Probe	CT-LSP043	LSP PAX7 5' FISH Probe	CT-LSP159
LSP NONO FISH Probe	CT-LSP198	LSP PAX8 FISH Probe	CT-LSP172
LSP NOR FISH Probe (human acrocentric p-arm specific)	CT-LSP345	LSP PBX1 3' FISH Probe	CT-LSP136
LSP NOTCH1 FISH Probe	CT-LSP469	LSP PBX1 5' FISH Probe	CT-LSP135
LSP NPM1 FISH Probe	CT-LSP199	LSP PBX1 5'-3' FISH Probe	CT-LSP318
LSP NSD1 FISH Probe	CT-LSP433	LSP PCM1 3' FISH Probe	CT-LSP466
LSP NTRK1 3' FISH Probe	CT-LSP244	LSP PCM1 5' FISH Probe	CT-LSP465
LSP NTRK1 5' FISH Probe	CT-LSP243	LSP PCM1 5'-3' FISH Probe	CT-LSP473
LSP NTRK2 3' FISH Probe	CT-LSP460	LSP PCSK6 FISH Probe	CT-LSP369
LSP NTRK2 5' FISH Probe	CT-LSP459	LSP PDCD1 FISH Probe	CT-LSP346
LSP NTRK3 3' FISH Probe	CT-LSP334	LSP PDCD1LG2 FISH Probe	CT-LSP331
LSP NTRK3 5' FISH Probe	CT-LSP335	LSP PDGFB 3' FISH Probe	CT-LSP152
LSP NTRK3 5'-3' FISH Probe	CT-LSP279	LSP PDGFB 5' FISH Probe	CT-LSP151
LSP NUP214 3' FISH Probe	CT-LSP208	LSP PDGFB 5'-3' FISH Probe	CT-LSP297
LSP NUP214 5' FISH Probe	CT-LSP207	LSP PDGFRA 3' FISH Probe	CT-LSP154
LSP NUP214 FISH Probe	CT-LSP245	LSP PDGFRA 5' FISH Probe	CT-LSP153
LSP NUP98 3' FISH Probe	CT-LSP265	LSP PDGFRA FISH Probe	CT-LSP069
LSP NUP98 5' FISH Probe	CT-LSP264	LSP PDGFRB 3' FISH Probe	CT-LSP138
LSP P2RY8 3' FISH Probe	CT-LSP479	LSP PDGFRB 5' FISH Probe	CT-LSP137
LSP P2RY8 5' FISH Probe	CT-LSP478	LSP PHF1 3' FISH Probe	CT-LSP423
LSP PAFAH1B1 FISH Probe	CT-LSP291	LSP PHF1 5' FISH Probe	CT-LSP422
LSP PAX3 3' FISH Probe	CT-LSP158	LSP PIK3CA FISH Probe	CT-LSP011
LSP PAX3 5' FISH Probe	CT-LSP157	LSP PLAG1 3' FISH Probe	CT-LSP337
LSP PAX5 3' FISH Probe	CT-LSP439	LSP PLAG1 5' FISH Probe	CT-LSP336
LSP PAX5 5' FISH Probe	CT-LSP438	LSP PML 5' FISH Probe	CT-LSP302
LSP PAX5 5'-3' FISH Probe	CT-LSP450	LSP PML FISH Probe	CT-LSP188





<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP PNOC FISH Probe	CT-LSP246	LSP RELA FISH Probe	CT-LSP463
LSP PPARG 3' FISH Probe	CT-LSP248	LSP RET 3' FISH Probe	CT-LSP090
LSP PPARG 5' FISH Probe	CT-LSP247	LSP RET 5' FISH Probe	CT-LSP089
LSP PPARG FISH Probe	CT-LSP173	LSP ROS1 3' FISH Probe	CT-LSP092
LSP PPP1R16B FISH Probe	CT-LSP299	LSP ROS1 5' FISH Probe	CT-LSP091
LSP PRCC FISH Probe	CT-LSP252	LSP RPN1 FISH Probe	CT-LSP202
LSP PRKAR1A FISH Probe	CT-LSP175	LSP RPPH1 FISH Probe	CT-LSP437
LSP PRKAR1B FISH Probe	CT-LSP358	LSP RREB1 FISH Probe	CT-LSP250
LSP PRMT2 FISH Probe	CT-LSP380	LSP RUNX1 3' FISH Probe	CT-LSP457
LSP PTEN FISH Probe	CT-LSP042	LSP RUNX1 5' FISH Probe	CT-LSP456
LSP PTGS2 FISH Probe	CT-LSP015	LSP RUNX1 FISH Probe	CT-LSP189
LSP PTPRT FISH Probe	CT-LSP249	LSP RUNX1T1 FISH Probe	CT-LSP215
LSP RACK1 FISH Probe	CT-LSP355	LSP S100A10 FISH Probe	CT-LSP255
LSP RAD51B 3' FISH Probe	CT-LSP491	LSP SDHB FISH Probe	CT-LSP009
LSP RAD51B 5' FISH Probe	CT-LSP490	LSP SEC63 FISH Probe	CT-LSP038
LSP RAD51B FISH Probe	CT-LSP492	LSP SEMA5A FISH Probe	CT-LSP037
LSP RARA 3' FISH Probe	CT-LSP162	LSP SFPQ FISH Probe	CT-LSP203
LSP RARA 5' FISH Probe	CT-LSP161	LSP SHOX FISH Probe	CT-LSP216
LSP RARA FISH Probe	CT-LSP217	LSP SKI FISH Probe	CT-LSP347
LSP RASA3 FISH Probe	CT-LSP258	LSP SMAD4 FISH Probe	CT-LSP399
LSP RB1 FISH Probe	CT-LSP054	LSP SMAD6 FISH Probe	CT-LSP251
LSP RBFA FISH Probe	CT-LSP375	LSP SMAD7 FISH Probe	CT-LSP400
LSP RBM15 3' FISH Probe	CT-LSP412	LSP SMARCB1 3' FISH Probe	CT-LSP436
LSP RBM15 5' FISH Probe	CT-LSP411	LSP SMARCB1 5' FISH Probe	CT-LSP435
LSP RBM15 5'-3' FISH Probe	CT-LSP214	LSP SMARCB1 FISH Probe	CT-LSP434
LSP RELA 3' FISH Probe	CT-LSP462	LSP SNRPN FISH Probe	CT-LSP468
LSP RELA 5' FISH Probe	CT-LSP461	LSP SOX12 FISH Probe	CT-LSP378



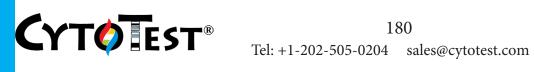


<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP SOX2 FISH Probe	CT-LSP025	LSP TFEB 5' FISH Probe	CT-LSP111
LSP SOX5 FISH Probe	CT-LSP444	LSP TFG 3' FISH Probe	CT-LSP082
LSP SRY FISH Probe	CT-LSP045	LSP TFG 5' FISH Probe	CT-LSP081
LSP SS18 3' FISH Probe	CT-LSP084	LSP TFG FISH Probe	CT-LSP284
LSP SS18 5' FISH Probe	CT-LSP083	LSP TGFBR3 3' FISH Probe	CT-LSP339
LSP STAT6 3' FISH Probe	CT-LSP305	LSP TGFBR3 5' FISH Probe	CT-LSP338
LSP STAT6 5' FISH Probe	CT-LSP306	LSP TGFBR3 5'-3' FISH Probe	CT-LSP343
LSP STAT6 FISH Probe	CT-LSP290	LSP THOC1 FISH Probe	CT-LSP374
LSP SUZ12 3' FISH Probe	CT-LSP394	LSP TLX1 3' FISH Probe	CT-LSP286
LSP SUZ12 5' FISH Probe	CT-LSP395	LSP TLX1 5' FISH Probe	CT-LSP285
LSP SUZ12 5'-3' FISH Probe	CT-LSP397	LSP TMPRSS2 3' FISH Probe	CT-LSP106
LSP SUZ12 FISH Probe	CT-LSP396	LSP TMPRSS2 5' FISH Probe	CT-LSP105
LSP TAZ FISH Probe	CT-LSP500	LSP TMPRSS2 FISH Probe	CT-LSP213
LSP TBL1XR1 FISH Probe	CT-LSP062	LSP TNIK FISH Probe	CT-LSP076
LSP TBX1 FISH Probe	CT-LSP046	LSP TNPO3 FISH Probe	CT-LSP471
LSP TCF3 3' FISH Probe	CT-LSP134	LSP TOP2A FISH Probe	CT-LSP013
LSP TCF3 5' FISH Probe	CT-LSP133	LSP TP53 FISH Probe	CT-LSP051
LSP TCF3 5'-3' FISH Probe	CT-LSP317	LSP TP63 FISH Probe	CT-LSP064
LSP TCL1A 3' FISH Probe	CT-LSP164	LSP TP73 FISH Probe	CT-LSP032
LSP TCL1A 5' FISH Probe	CT-LSP163	LSP TPM4 FISH Probe	CT-LSP027
LSP TCTE3 FISH Probe	CT-LSP357	LSP TRA 3' FISH Probe	CT-LSP168
LSP TEKT3 FISH Probe	CT-LSP295	LSP TRA 5' FISH Probe	CT-LSP167
LSP TERC FISH Probe	CT-LSP002	LSP TRB 3' FISH Probe	CT-LSP497
LSP TERT FISH Probe	CT-LSP003	LSP TRB 5' FISH Probe	CT-LSP496
LSP TFE3 3' FISH Probe	CT-LSP088	LSP TRPV6 FISH Probe	CT-LSP426
LSP TFE3 5' FISH Probe	CT-LSP087	LSP TSC1 FISH Probe	CT-LSP024
LSP TFEB 3' FISH Probe	CT-LSP112	LSP TSC2 FISH Probe	CT-LSP007





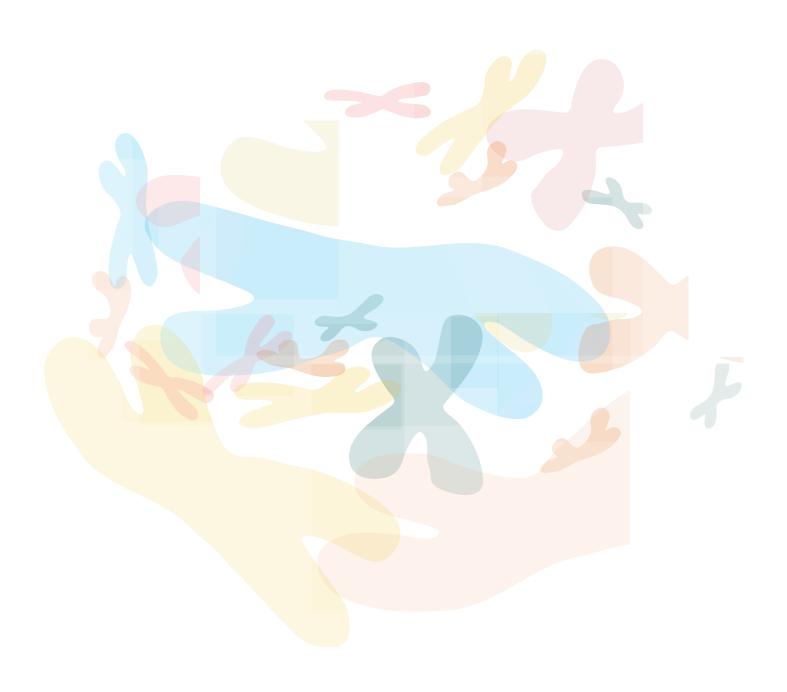
<b>Product Description</b>	Catalog	<b>Product Description</b>	Catalog
LSP TUBGCP2 FISH Probe	CT-LSP364	LSP WWTR1 5' FISH Probe	CT-LSP382
LSP TYMS FISH Probe	CT-LSP070	LSP WWTR1 5'-3' FISH Probe	CT-LSP388
LSP UBE3A FISH Probe	CT-LSP467	LSP WWTR1 FISH Probe	CT-LSP384
LSP USP6 3' FISH Probe	CT-LSP146	LSP XIST FISH Probe	CT-LSP008
LSP USP6 5' FISH Probe	CT-LSP145	LSP YWHAE 3' FISH Probe	CT-LSP148
LSP USP7 FISH Probe	CT-LSP447	LSP YWHAE 5' FISH Probe	CT-LSP147
LSP VAMP7 FISH Probe	CT-LSP381	LSP ZBTB16 FISH Probe	CT-LSP256
LSP VHL FISH Probe	CT-LSP017	LSP ZMYND11 FISH Probe	CT-LSP363
LSP VIPR2 FISH Probe	CT-LSP257	LSP ZNF217 FISH Probe	CT-LSP074
LSP VPS53 FISH Probe	CT-LSP372	LSP ZNF384 3' FISH Probe	CT-LSP486
LSP WHSC1L1 FISH Probe	CT-LSP029	LSP ZNF384 5' FISH Probe	CT-LSP485
LSP WHSC2 FISH Probe	CT-LSP495	LSP ZNF384 5'-3' FISH Probe	CT-LSP487
LSP WT1 3' FISH Probe	CT-LSP166	LSP ZNF443 FISH Probe	CT-LSP035
LSP WT1 5' FISH Probe	CT-LSP165	LSP ZNF544 FISH Probe	CT-LSP377
LSP WT1 FISH Probe	CT-LSP075	LSP ZNF595 FISH Probe	CT-LSP353
LSP WWOX FISH Probe	CT-LSP405	LSP ZNF703 FISH Probe	CT-LSP028



LSP WWTR1 3' FISH Probe CT-LSP383



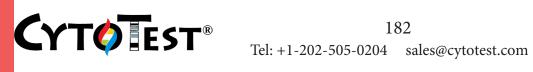
# **Index by Location**







Catalog	<b>Product Description</b>	Locus
Chromosome	1	
CT-STP01P	1p Subtelomere FISH Probe (SKI)	1p36.33-p36.32
CT-LSP032	LSP TP73 FISH Probe	1p36.32
CT-LSP041	LSP CHD5 FISH Probe	1p36.31
CT-LSP009	LSP SDHB FISH Probe	1p36.13
CT-LSP159	LSP PAX7 5' FISH Probe	1p36.13
CT-LSP160	LSP PAX7 3' FISH Probe	1p36.13
CT-LSP203	LSP SFPQ FISH Probe	1p34.3
CT-LSP068	LSP CDKN2C FISH Probe	1p32.3
CT-LSP338	LSP TGFBR3 5' FISH Probe	1p22.1
CT-LSP339	LSP TGFBR3 3' FISH Probe	1p22.1
CT-LSP343	LSP TGFBR3 5'-3' FISH Probe	1p22.1
CT-LSP214	LSP RBM15 5'-3' FISH Probe	1p13.3
CT-LSP411	LSP RBM15 5' FISH Probe	1p13.3
CT-LSP412	LSP RBM15 3' FISH Probe	1p13.3
CT-LSP067	LSP CKS1B FISH Probe	1q21.3
CT-LSP240	LSP MCL1 FISH Probe	1q21.3
CT-LSP255	LSP S100A10 FISH Probe	1q21.3
CT-LSP483	LSP MEF2D 5' FISH Probe	1q22
CT-LSP484	LSP MEF2D 3' FISH Probe	1q22
CT-LSP243	LSP NTRK1 5' FISH Probe	1q23.1
CT-LSP244	LSP NTRK1 3' FISH Probe	1q23.1
CT-LSP252	LSP PRCC FISH Probe	1q23.1
CT-LSP135	LSP PBX1 5' FISH Probe	1q23.3
CT-LSP136	LSP PBX1 3' FISH Probe	1q23.3
CT-LSP318	LSP PBX1 5'-3' FISH Probe	1q23.3





Catalog	<b>Product Description</b>	Locus
CT-LSP033	LSP ABL2 FISH Probe	1q25.2
CT-LSP424	LSP ABL2 5' FISH Probe	1q25.2
CT-LSP425	LSP ABL2 3' FISH Probe	1q25.2
CT-LSP015	LSP PTGS2 FISH Probe	1q31.1
CT-LSP446	LSP MDM4 FISH Probe	1q32.1
CT-LSP348	LSP D1S3148 FISH Probe	1q44
CT-STP01Q	1q Subtelomere FISH Probe (D1S3148)	1q44
Chromosome 2		
CT-STP02P	2p Subtelomere FISH Probe (ACP1)	2p25.3
CT-LSP349	LSP ACP1 FISH Probe	2p25.3
CT-LSP073	LSP MYCN FISH Probe	2p24.3
CT-LSP085	LSP ALK 5' FISH Probe	2p23.2
CT-LSP086	LSP ALK 3' FISH Probe	2p23.2
CT-LSP169	LSP EML4 FISH Probe	2p21
CT-LSP310	LSP IGK 5' FISH Probe	2p11.2
CT-LSP311	LSP IGK 3' FISH Probe	2p11.2
CT-LSP313	LSP IGK 5'-3' FISH Probe	2p11.2
CT-LSP172	LSP PAX8 FISH Probe	2q13
CT-LSP023	LSP ERBB4 FISH Probe	2q34
CT-LSP177	LSP FN1 5' FISH Probe	2q35
CT-LSP157	LSP PAX3 5' FISH Probe	2q36.1
CT-LSP158	LSP PAX3 3' FISH Probe	2q36.1
CT-LSP346	LSP PDCD1 FISH Probe	2q37.3
CT-LSP350	LSP BOK FISH Probe	2q37.3
CT-LSP402	LSP ING5 FISH Probe	2q37.3
CT-STP02Q	2q Subtelomere FISH Probe (BOK)	2q37.3



Catalog	<b>Product Description</b>	Locus
Chromosome 3	}	
CT-STP03P	3p Subtelomere FISH Probe (CHL1)	3p26.3
CT-LSP351	LSP CHL1 FISH Probe	3p26.3
CT-LSP017	LSP VHL FISH Probe	3p25.3
CT-LSP173	LSP PPARG FISH Probe	3p25.2
CT-LSP247	LSP PPARG 5' FISH Probe	3p25.2
CT-LSP248	LSP PPARG 3' FISH Probe	3p25.2
CT-LSP430	LSP BAP1 FISH Probe	3p21.1
CT-LSP018	LSP FHIT FISH Probe	3p14.2
CT-LSP081	LSP TFG 5' FISH Probe	3q12.2
CT-LSP082	LSP TFG 3' FISH Probe	3q12.2
CT-LSP284	LSP TFG FISH Probe	3q12.2
CT-LSP036	LSP LSAMP FISH Probe	3q13.31
CT-LSP202	LSP RPN1 FISH Probe	3q21.3
CT-LSP382	LSP WWTR1 5' FISH Probe	3q25.1
CT-LSP383	LSP WWTR1 3' FISH Probe	3q25.1
CT-LSP384	LSP WWTR1 FISH Probe	3q25.1
CT-LSP388	LSP WWTR1 5'-3' FISH Probe	3q25.1
CT-LSP002	LSP TERC FISH Probe	3q26.2
CT-LSP072	LSP MECOM FISH Probe	3q26.2
CT-LSP076	LSP TNIK FISH Probe	3q26.2
CT-LSP155	LSP MECOM 5' FISH Probe	3q26.2
CT-LSP156	LSP MECOM 3' FISH Probe	3q26.2
CT-LSP292	LSP MECOM 5'-3' FISH Probe	3q26.2
CT-LSP011	LSP PIK3CA FISH Probe	3q26.32
CT-LSP062	LSP TBL1XR1 FISH Probe	3q26.32
CT-LSP025	LSP SOX2 FISH Probe	3q26.33





Catalog	<b>Product Description</b>	Locus
CT-LSP117	LSP BCL6 5' FISH Probe	3q27.3
CT-LSP118	LSP BCL6 3' FISH Probe	3q27.3
CT-LSP182	LSP BCL6 5'-3' FISH Probe	3q27.3
CT-LSP064	LSP TP63 FISH Probe	3q28
CT-LSP352	LSP BDH1 FISH Probe	3q29
CT-STP03Q	3q Subtelomere FISH Probe (BDH1)	3q29
Chromosome 4		
CT-STP04P	4p Subtelomere FISH Probe (ZNF595)	4p16.3
CT-LSP131	LSP FGFR3 5' FISH Probe	4p16.3
CT-LSP132	LSP FGFR3 3' FISH Probe	4p16.3
CT-LSP192	LSP FGFR3 FISH Probe	4p16.3
CT-LSP353	LSP ZNF595 FISH Probe	4p16.3
CT-LSP069	LSP PDGFRA FISH Probe	4q12
CT-LSP153	LSP PDGFRA 5' FISH Probe	4q12
CT-LSP154	LSP PDGFRA 3' FISH Probe	4q12
CT-LSP236	LSP KIT FISH Probe	4q12
CT-LSP259	LSP FIP1L1 FISH Probe	4q12
CT-LSP260	LSP CHIC2 FISH Probe	4q12
CT-LSP141	LSP AFF1 5' FISH Probe	4q21.3
CT-LSP142	LSP AFF1 3' FISH Probe	4q21.3
CT-LSP304	LSP AFF1 5'-3' FISH Probe	4q21.3
CT-LSP014	LSP CISD2 FISH Probe	4q24
CT-LSP489	LSP FBXW7 FISH Probe	4q31
CT-LSP328	LSP DUX4 FISH Probe	4q35.2
CT-LSP354	LSP D4S2390 FISH Probe	4q35.2
CT-STP04Q	4q Subtelomere FISH Probe (D4S2390)	4q35.2



Catalog	<b>Product Description</b>	Locus
Chromosome 5	5	
CT-STP05P	5p Subtelomere FISH Probe (AHRR)	5p15.33
CT-LSP003	LSP TERT FISH Probe	5p15.33
CT-LSP031	LSP AHRR FISH Probe	5p15.33
CT-LSP037	LSP SEMA5A FISH Probe	5p15.31
CT-LSP053	LSP D5S23,D5S721 FISH Probe	5p15.2
CT-LSP501	LSP CTNND2 FISH Probe	5p15.2
CT-LSP458	LSP CDH12 FISH Probe	5p14.3
CT-LSP030	LSP IPO11 FISH Probe	5q12.1
CT-LSP480	LSP CCNB1 FISH Probe	5q13
CT-LSP044	LSP CHD1 FISH Probe	5q15
CT-LSP398	LSP APC FISH Probe	5q22.2
CT-LSP052	LSP EGR1 FISH Probe	5q31.2
CT-LSP253	LSP FGF1 5' FISH Probe	5q31.3
CT-LSP254	LSP FGF1 3' FISH Probe	5q31.3
CT-LSP055	LSP CSF1R FISH Probe	5q32
CT-LSP137	LSP PDGFRB 5' FISH Probe	5q32
CT-LSP138	LSP PDGFRB 3' FISH Probe	5q32
CT-LSP448	LSP CSF1R 5' FISH Probe	5q32
CT-LSP449	LSP CSF1R 3' FISH Probe	5q32
CT-LSP199	LSP NPM1 FISH Probe	5q35.1
CT-LSP232	LSP FGFR4 FISH Probe	5q35.2
CT-LSP233	LSP FGFR4 5' FISH Probe	5q35.2
CT-LSP234	LSP FGFR4 3' FISH Probe	5q35.2
CT-LSP433	LSP NSD1 FISH Probe	5q35.2
CT-LSP355	LSP RACK1 FISH Probe	5q35.3
CT-STP05Q	5q Subtelomere FISH Probe (RACK1)	5q35.3



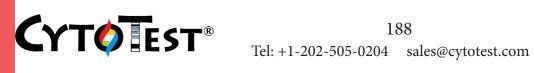


Catalog	Product Description	Locus
Chromosome 6		
CT-STP06P	6p Subtelomere FISH Probe (EXOC2)	6p25.3
CT-LSP276	LSP IRF4/DUSP22 5' FISH Probe	6p25.3
CT-LSP277	LSP IRF4/DUSP22 3' FISH Probe	6p25.3
CT-LSP356	LSP EXOC2 FISH Probe	6p25.3
CT-LSP472	LSP IRF4/DUSP22 5'-3' FISH Probe	6p25.3
CT-LSP250	LSP RREB1 FISH Probe	6p24.3
CT-LSP205	LSP DEK 5' FISH Probe	6p22.3
CT-LSP206	LSP DEK 3' FISH Probe	6p22.3
CT-LSP229	LSP DEK FISH Probe	6p22.3
CT-LSP404	LSP CLIC1 FISH Probe	6p21.33
CT-LSP422	LSP PHF1 5' FISH Probe	6p21.32
CT-LSP423	LSP PHF1 3' FISH Probe	6p21.32
CT-LSP071	LSP GLO1 FISH Probe	6p21.2
CT-LSP111	LSP TFEB 5' FISH Probe	6p21.1
CT-LSP112	LSP TFEB 3' FISH Probe	6p21.1
CT-LSP282	LSP CCND3 5' FISH Probe	6p21.1
CT-LSP283	LSP CCND3 3' FISH Probe	6p21.1
CT-LSP293	LSP CCND3 5'-3' FISH Probe	6p21.1
CT-LSP038	LSP SEC63 FISH Probe	6q21
CT-LSP091	LSP ROS1 5' FISH Probe	6q22.1
CT-LSP092	LSP ROS1 3' FISH Probe	6q22.1
CT-LSP004	LSP MYB FISH Probe	6q23.3
CT-LSP103	LSP MYB 5' FISH Probe	6q23.3
CT-LSP104	LSP MYB 3' FISH Probe	6q23.3
CT-LSP278	LSP MYCT1 FISH Probe	6q25.2
CT-LSP273	LSP MLLT4 5' FISH Probe	6q27





Catalog	<b>Product Description</b>	Locus
CT-LSP274	LSP MLLT4 3' FISH Probe	6q27
CT-LSP275	LSP MLLT4 5'-3' FISH Probe	6q27
CT-LSP357	LSP TCTE3 FISH Probe	6q27
CT-STP06Q	6q Subtelomere FISH Probe (TCTE3)	6q27
Chromosome 7		
CT-STP07P	7p Subtelomere FISH Probe (PRKAR1B)	7p22.3
CT-LSP358	LSP PRKAR1B FISH Probe	7p22.3
CT-LSP099	LSP ETV1 5' FISH Probe	7p21.2
CT-LSP100	LSP ETV1 3' FISH Probe	7p21.2
CT-LSP006	LSP EGFR FISH Probe	7p11.2
CT-LSP452	LSP ELN FISH Probe	7q11.23
CT-LSP227	LSP CDK14 FISH Probe	7q21.13
CT-LSP187	LSP CDK6 FISH Probe	7q21.2
CT-LSP228	LSP CUX1 FISH Probe	7q22.1
CT-LSP016	LSP MET FISH Probe	7q31.2
CT-LSP057	LSP D7S486 FISH Probe	7q31.2
CT-LSP058	LSP D7S522 FISH Probe	7q31.2
CT-LSP471	LSP TNPO3 FISH Probe	7q32
CT-LSP186	LSP KIAA1549 5'-3' FISH Probe	7q34
CT-LSP222	LSP BRAF FISH Probe	7q34
CT-LSP223	LSP BRAF 5' FISH Probe	7q34
CT-LSP224	LSP BRAF 3' FISH Probe	7q34
CT-LSP289	LSP BRAF 5'-3' FISH Probe	7q34
CT-LSP409	LSP KIAA1549 5' FISH Probe	7q34
CT-LSP410	LSP KIAA1549 3' FISH Probe	7q34
CT-LSP426	LSP TRPV6 FISH Probe	7q34





Catalog	<b>Product Description</b>	Locus
CT-LSP496	LSP TRB 5' FISH Probe	7q34
CT-LSP497	LSP TRB 3' FISH Probe	7q34
CT-LSP257	LSP VIPR2 FISH Probe	7q36.3
CT-LSP419	LSP MNX1 5' FISH Probe	7q36.3
CT-LSP420	LSP MNX1 3' FISH Probe	7q36.3
CT-LSP421	LSP MNX1 5'-3' FISH Probe	7q36.3
CT-STP07Q	7q Subtelomere FISH Probe (VIPR2)	7q36.3
Chromosome 8		
CT-STP08P	8p Subtelomere FISH Probe (ERICH1-AS1)	8p23.3
CT-LSP359	LSP ERICH1-AS1 FISH Probe	8p23.3
CT-LSP465	LSP PCM1 5' FISH Probe	8p22
CT-LSP466	LSP PCM1 3' FISH Probe	8p22
CT-LSP473	LSP PCM1 5'-3' FISH Probe	8p22
CT-LSP239	LSP LPL FISH Probe	8p21.3
CT-LSP445	LSP DBC2 FISH Probe	8p21.3
CT-LSP043	LSP NKX3-1 FISH Probe	8p21.2
CT-LSP246	LSP PNOC FISH Probe	8p21.1
CT-LSP028	LSP ZNF703 FISH Probe	8p11.23
CT-LSP029	LSP WHSC1L1 FISH Probe	8p11.23
CT-LSP107	LSP FGFR1 5' FISH Probe	8p11.23
CT-LSP108	LSP FGFR1 3' FISH Probe	8p11.23
CT-LSP230	LSP FGFR1 FISH Probe	8p11.23
CT-LSP406	LSP KAT6A 5'-3' FISH Probe	8p11.21
CT-LSP415	LSP KAT6A 5' FISH Probe	8p11.21
CT-LSP416	LSP KAT6A 3' FISH Probe	8p11.21
CT-LSP336	LSP PLAG1 5' FISH Probe	8q12.1



CT-LSP337         LSP PLAG1 3' FISH Probe         8q12.1           CT-LSP215         LSP RUNX1T1 FISH Probe         8q21.3           CT-LSP005         LSP MYC FISH Probe         8q24.21           CT-LSP119         LSP MYC 5' FISH Probe         8q24.21           CT-LSP120         LSP MYC 3' FISH Probe         8q24.21           CT-LSP120         LSP MYC 5'-3' FISH Probe         8q24.21           CT-LSP307         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5'-1R FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP261         LSP DOCK8 FISH Probe         9p24.3           CT-LSP262         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP CD274 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP NFIB 3' FISH Probe         9p24.1 <td< th=""><th>Catalog</th><th><b>Product Description</b></th><th>Locus</th></td<>	Catalog	<b>Product Description</b>	Locus		
CT-LSP005         LSP MYC FISH Probe         8q24.21           CT-LSP119         LSP MYC 5' FISH Probe         8q24.21           CT-LSP120         LSP MYC 3' FISH Probe         8q24.21           CT-LSP184         LSP MYC 5'-3' FISH Probe         8q24.21           CT-LSP307         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5'-13' LR FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           CT-STP08D         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP DCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p21.3	CT-LSP337	LSP PLAG1 3' FISH Probe	8q12.1		
CT-LSP119         LSP MYC 5' FISH Probe         8q24.21           CT-LSP120         LSP MYC 3' FISH Probe         8q24.21           CT-LSP184         LSP MYC 5'-3' FISH Probe         8q24.21           CT-LSP307         LSP MYC 3' LR FISH Probe         8q24.21           CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5'-LR FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p21.3	CT-LSP215	LSP RUNX1T1 FISH Probe	8q21.3		
CT-LSP120 LSP MYC 3' FISH Probe 8q24.21 CT-LSP184 LSP MYC 5'-3' FISH Probe 8q24.21 CT-LSP307 LSP MYC 3' LR FISH Probe 8q24.21 CT-LSP312 LSP MYC 5'-3' LR FISH Probe 8q24.21 CT-LSP315 LSP MYC 5'-BISH Probe 8q24.21 CT-LSP360 LSP ARHGAP39 FISH Probe 8q24.3 CT-STP08Q 8q Subtelomere FISH Probe (ARHGAP39) 8q24.3  CT-STP08P 9p Subtelomere FISH Probe (DOCK8) 9p24.3 CT-LSP361 LSP DOCK8 FISH Probe 9p24.1 CT-LSP261 LSP JAK2 3' FISH Probe 9p24.1 CT-LSP262 LSP JAK2 5' FISH Probe 9p24.1 CT-LSP330 LSP CD274 FISH Probe 9p24.1 CT-LSP331 LSP DOCK8 FISH Probe 9p24.1 CT-LSP332 LSP CD274, PDCD1LG2 FISH Probe 9p24.1 CT-LSP332 LSP CD274, PDCD1LG2 FISH Probe 9p24.1 CT-LSP474 LSP JAK2 5'-3' FISH Probe 9p24.1 CT-LSP474 LSP JAK2 5'-3' FISH Probe 9p24.1 CT-LSP012 LSP NFIB 3' FISH Probe 9p23 CT-LSP012 LSP CDKN2A FISH Probe 9p21.3 CT-LSP270 LSP MLLT3 5'-SI FISH Probe 9p21.3 CT-LSP271 LSP MLLT3 5'-SI FISH Probe 9p21.3 CT-LSP272 LSP MLLT3 5'-SI FISH Probe 9p21.3	CT-LSP005	LSP MYC FISH Probe	8q24.21		
CT-LSP184         LSP MYC 5'-3' FISH Probe         8q24.21           CT-LSP307         LSP MYC 3' LR FISH Probe         8q24.21           CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5' LR FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p21.3           CT-LSP270         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 5'-3' FISH Probe         9p2	CT-LSP119	LSP MYC 5' FISH Probe	8q24.21		
CT-LSP307         LSP MYC 3' LR FISH Probe         8q24.21           CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5' LR FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           Chromosome 9           CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP2170         LSP NFIB 3' FISH Probe         9p21.3           CT-LSP270         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 5'-3' FISH Probe         9p21.3 <td <="" colspan="2" td=""><td>CT-LSP120</td><td>LSP MYC 3' FISH Probe</td><td>8q24.21</td></td>	<td>CT-LSP120</td> <td>LSP MYC 3' FISH Probe</td> <td>8q24.21</td>		CT-LSP120	LSP MYC 3' FISH Probe	8q24.21
CT-LSP312         LSP MYC 5'-3' LR FISH Probe         8q24.21           CT-LSP315         LSP MYC 5' LR FISH Probe         8q24.21           CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           CT-LSP361         LSP DOCK8 FISH Probe (DOCK8)         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP230         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP DDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP272<	CT-LSP184	LSP MYC 5'-3' FISH Probe	8q24.21		
CT-LSP315 LSP MYC 5' LR FISH Probe 8q24.21 CT-LSP360 LSP ARHGAP39 FISH Probe 8q24.3 CT-STP08Q 8q Subtelomere FISH Probe (ARHGAP39) 8q24.3  Chromosome 9 CT-STP09P 9p Subtelomere FISH Probe (DOCK8) 9p24.3 CT-LSP361 LSP DOCK8 FISH Probe 9p24.1 CT-LSP261 LSP JAK2 3' FISH Probe 9p24.1 CT-LSP262 LSP JAK2 5' FISH Probe 9p24.1 CT-LSP330 LSP CD274 FISH Probe 9p24.1 CT-LSP331 LSP PDCD1LG2 FISH Probe 9p24.1 CT-LSP332 LSP CD274, PDCD1LG2 FISH Probe 9p24.1 CT-LSP474 LSP JAK2 5'-3' FISH Probe 9p24.1 CT-LSP474 LSP JAK2 5'-3' FISH Probe 9p24.1 CT-LSP170 LSP NFIB 3' FISH Probe 9p23 CT-LSP271 LSP MLLT3 5' FISH Probe 9p21.3 CT-LSP271 LSP MLLT3 5'-3' FISH Probe 9p21.3 CT-LSP272 LSP MLLT3 5'-3' FISH Probe 9p21.3	CT-LSP307	LSP MYC 3' LR FISH Probe	8q24.21		
CT-LSP360         LSP ARHGAP39 FISH Probe         8q24.3           CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           Chromosome 9           CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP PDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p21.3           CT-LSP270         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 5'-3' FISH Probe         9p21.3           CT-LSP272         LSP MLLT3 5'-3' FISH Probe         9p21.3	CT-LSP312	LSP MYC 5'-3' LR FISH Probe	8q24.21		
CT-STP08Q         8q Subtelomere FISH Probe (ARHGAP39)         8q24.3           Chromosome 9         CT-STP09P         9p Subtelomere FISH Probe (DOCK8)         9p24.3           CT-LSP361         LSP DOCK8 FISH Probe         9p24.3           CT-LSP261         LSP JAK2 3' FISH Probe         9p24.1           CT-LSP262         LSP JAK2 5' FISH Probe         9p24.1           CT-LSP330         LSP CD274 FISH Probe         9p24.1           CT-LSP331         LSP PDCD1LG2 FISH Probe         9p24.1           CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p23           CT-LSP012         LSP CDKN2A FISH Probe         9p21.3           CT-LSP270         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 5'-3' FISH Probe         9p21.3           CT-LSP272         LSP MLLT3 5'-3' FISH Probe         9p21.3	CT-LSP315	LSP MYC 5' LR FISH Probe	8q24.21		
Chromosome 9         CT-STP09P       9p Subtelomere FISH Probe (DOCK8)       9p24.3         CT-LSP361       LSP DOCK8 FISH Probe       9p24.3         CT-LSP261       LSP JAK2 3' FISH Probe       9p24.1         CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 5'-3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP360	LSP ARHGAP39 FISH Probe	8q24.3		
CT-STP09P       9p Subtelomere FISH Probe (DOCK8)       9p24.3         CT-LSP361       LSP DOCK8 FISH Probe       9p24.3         CT-LSP261       LSP JAK2 3' FISH Probe       9p24.1         CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-STP08Q	8q Subtelomere FISH Probe (ARHGAP39)	8q24.3		
CT-STP09P       9p Subtelomere FISH Probe (DOCK8)       9p24.3         CT-LSP361       LSP DOCK8 FISH Probe       9p24.3         CT-LSP261       LSP JAK2 3' FISH Probe       9p24.1         CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3					
CT-LSP361       LSP DOCK8 FISH Probe       9p24.3         CT-LSP261       LSP JAK2 3' FISH Probe       9p24.1         CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 5'-3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	Chromosome 9				
CT-LSP261       LSP JAK2 3' FISH Probe       9p24.1         CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 5'-3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-STP09P	9p Subtelomere FISH Probe (DOCK8)	9p24.3		
CT-LSP262       LSP JAK2 5' FISH Probe       9p24.1         CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 5'-3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP361	LSP DOCK8 FISH Probe	9p24.3		
CT-LSP330       LSP CD274 FISH Probe       9p24.1         CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP261	LSP JAK2 3' FISH Probe	9p24.1		
CT-LSP331       LSP PDCD1LG2 FISH Probe       9p24.1         CT-LSP332       LSP CD274, PDCD1LG2 FISH Probe       9p24.1         CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP262	LSP JAK2 5' FISH Probe	9p24.1		
CT-LSP332         LSP CD274, PDCD1LG2 FISH Probe         9p24.1           CT-LSP474         LSP JAK2 5'-3' FISH Probe         9p24.1           CT-LSP170         LSP NFIB 3' FISH Probe         9p23           CT-LSP012         LSP CDKN2A FISH Probe         9p21.3           CT-LSP270         LSP MLLT3 5' FISH Probe         9p21.3           CT-LSP271         LSP MLLT3 3' FISH Probe         9p21.3           CT-LSP272         LSP MLLT3 5'-3' FISH Probe         9p21.3	CT-LSP330	LSP CD274 FISH Probe	9p24.1		
CT-LSP474       LSP JAK2 5'-3' FISH Probe       9p24.1         CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP331	LSP PDCD1LG2 FISH Probe	9p24.1		
CT-LSP170       LSP NFIB 3' FISH Probe       9p23         CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP332	LSP CD274, PDCD1LG2 FISH Probe	9p24.1		
CT-LSP012       LSP CDKN2A FISH Probe       9p21.3         CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP474	LSP JAK2 5'-3' FISH Probe	9p24.1		
CT-LSP270       LSP MLLT3 5' FISH Probe       9p21.3         CT-LSP271       LSP MLLT3 3' FISH Probe       9p21.3         CT-LSP272       LSP MLLT3 5'-3' FISH Probe       9p21.3	CT-LSP170	LSP NFIB 3' FISH Probe	9p23		
CT-LSP271 LSP MLLT3 3' FISH Probe 9p21.3 CT-LSP272 LSP MLLT3 5'-3' FISH Probe 9p21.3	CT-LSP012	LSP CDKN2A FISH Probe	9p21.3		
CT-LSP272 LSP MLLT3 5'-3' FISH Probe 9p21.3	CT-LSP270	LSP MLLT3 5' FISH Probe	9p21.3		
	CT-LSP271	LSP MLLT3 3' FISH Probe	9p21.3		
CT-LSP438 LSP PAX5 5' FISH Probe 9p13.2	CT-LSP272	LSP MLLT3 5'-3' FISH Probe	9p21.3		
_	CT-LSP438	LSP PAX5 5' FISH Probe	9p13.2		





Catalog	<b>Product Description</b>	Locus
CT-LSP439	LSP PAX5 3' FISH Probe	9p13.2
CT-LSP450	LSP PAX5 5'-3' FISH Probe	9p13.2
CT-LSP459	LSP NTRK2 5' FISH Probe	9q21
CT-LSP460	LSP NTRK2 3' FISH Probe	9q21
CT-LSP469	LSP NOTCH1 FISH Probe	9q34
CT-LSP470	LSP MIR4292 FISH Probe	9q34
CT-LSP204	LSP ASS1 FISH Probe	9q34.11
CT-LSP179	LSP ABL1 FISH Probe	9q34.12
CT-LSP211	LSP ABL1 5' FISH Probe	9q34.12
CT-LSP212	LSP ABL1 3' FISH Probe	9q34.12
CT-LSP024	LSP TSC1 FISH Probe	9q34.13
CT-LSP207	LSP NUP214 5' FISH Probe	9q34.13
CT-LSP208	LSP NUP214 3' FISH Probe	9q34.13
CT-LSP245	LSP NUP214 FISH Probe	9q34.13
CT-LSP362	LSP EHMT1 FISH Probe	9q34.3
CT-STP09Q	9q Subtelomere FISH Probe (EHMT1)	9q34.3
Chromosome 10		
CT-STP10P	10p Subtelomere FISH Probe (ZMYND11)	10p15.3
CT-LSP363	LSP ZMYND11 FISH Probe	10p15.3
CT-LSP171	LSP KIF5B 5' FISH Probe	10p11.22
CT-LSP235	LSP KIF5B 3' FISH Probe	10p11.22
CT-LSP089	LSP RET 5' FISH Probe	10q11.21
CT-LSP090	LSP RET 3' FISH Probe	10q11.21
CT-LSP176	LSP NCOA4 FISH Probe	10q11.23
CT-LSP174	LSP CCDC6 FISH Probe	10q21.2



10q23.31

LSP PTEN FISH Probe

CT-LSP042

Catalog	Product Description	Locus
CT-LSP285	LSP TLX1 5' FISH Probe	10q24.31
CT-LSP286	LSP TLX1 3' FISH Probe	10q24.31
CT-LSP340	LSP MGEA5 3' FISH Probe	10q24.32
CT-LSP341	LSP MGEA5 5' FISH Probe	10q24.32
CT-LSP342	LSP MGEA5 5'-3' FISH Probe	10q24.32
CT-LSP231	LSP FGFR2 FISH Probe	10q26.13
CT-LSP364	LSP TUBGCP2 FISH Probe	10q26.3
CT-STP10Q	10q Subtelomere FISH Probe (TUBGCP2)	10q26.3
Chromosome 11	1	
CT-STP11P	11p Subtelomere FISH Probe (HRAS)	11p15.5
CT-LSP365	LSP HRAS FISH Probe	11p15.5
CT-LSP039	LSP CARS FISH Probe	11p15.4
CT-LSP079	LSP CARS 5' FISH Probe	11p15.4
CT-LSP080	LSP CARS 3' FISH Probe	11p15.4
CT-LSP264	LSP NUP98 5' FISH Probe	11p15.4
CT-LSP265	LSP NUP98 3' FISH Probe	11p15.4
CT-LSP075	LSP WT1 FISH Probe	11p13
CT-LSP165	LSP WT1 5' FISH Probe	11p13
CT-LSP166	LSP WT1 3' FISH Probe	11p13
CT-LSP481	LSP C11ORF95 5' FISH Probe	11q13
CT-LSP482	LSP C11ORF95 3' FISH Probe	11q13
CT-LSP461	LSP RELA 5' FISH Probe	11q13.1
CT-LSP462	LSP RELA 3' FISH Probe	11q13.1
CT-LSP463	LSP RELA FISH Probe	11q13.1
CT-LSP121	LSP CCND1 5' FISH Probe	11q13.3





CT-LSP122 LSP CCND1 3' FISH Probe

Catalog	<b>Product Description</b>	Locus
CT-LSP183	LSP CCND1 5'-3' FISH Probe	11q13.3
CT-LSP197	LSP MYEOV FISH Probe	11q13.3
CT-LSP241	LSP MYEOV 5' FISH Probe	11q13.3
CT-LSP242	LSP MYEOV 3' FISH Probe	11q13.3
CT-LSP303	LSP FOLR1 FISH Probe	11q13.4
CT-LSP427	LSP FOLR1 5' FISH Probe	11q13.4
CT-LSP428	LSP FOLR1 3' FISH Probe	11q13.4
CT-LSP196	LSP BIRC3 FISH Probe	11q22.2
CT-LSP050	LSP ATM FISH Probe	11q22.3
CT-LSP256	LSP ZBTB16 FISH Probe	11q23.2
CT-LSP123	LSP KMT2A 5' FISH Probe	11q23.3
CT-LSP124	LSP KMT2A 3' FISH Probe	11q23.3
CT-LSP237	LSP KMT2A FISH Probe	11q23.3
CT-LSP266	LSP KMT2A 5'-3' FISH Probe	11q23.3
CT-LSP401	LSP CHEK1 FISH Probe	11q24.2
CT-LSP288	LSP FLI1 FISH Probe	11q24.3
CT-LSP300	LSP FLI1 5' FISH Probe	11q24.3
CT-LSP301	LSP FLI1 3' FISH Probe	11q24.3
CT-LSP344	LSP FLI1 5'-3' FISH Probe	11q24.3
CT-LSP366	LSP B3GAT1 FISH Probe	11q25
CT-STP11Q	11q Subtelomere FISH Probe (B3GAT1)	11q25
Chromosome 12		

CT-STP12P	12p Subtelomere FISH Probe (KDM5A)	12p13.33
CT-LSP367	LSP KDM5A FISH Probe	12p13.33
CT-LSP329	LSP CCND2 5' FISH Probe	12p13.32
CT-LSP333	LSP CCND2 3' FISH Probe	12p13.32





Catalog	<b>Product Description</b>	Locus
CT-LSP125	LSP ETV6 5' FISH Probe	12p13.2
CT-LSP126	LSP ETV6 3' FISH Probe	12p13.2
CT-LSP316	LSP ETV6 5'-3' FISH Probe	12p13.2
CT-LSP485	LSP ZNF384 5' FISH Probe	12p13
CT-LSP486	LSP ZNF384 3' FISH Probe	12p13
CT-LSP487	LSP ZNF384 5'-3' FISH Probe	12p13
CT-LSP238	LSP KRAS FISH Probe	12p12.1
CT-LSP444	LSP SOX5 FISH Probe	12p12.1
CT-LSP022	LSP ERBB3 FISH Probe	12q13.2
CT-LSP109	LSP DDIT3 5' FISH Probe	12q13.3
CT-LSP110	LSP DDIT3 3' FISH Probe	12q13.3
CT-LSP219	LSP GLI1 FISH Probe	12q13.3
CT-LSP290	LSP STAT6 FISH Probe	12q13.3
CT-LSP305	LSP STAT6 3' FISH Probe	12q13.3
CT-LSP306	LSP STAT6 5' FISH Probe	12q13.3
CT-LSP040	LSP CDK4 FISH Probe	12q14.1
CT-LSP010	LSP MDM2 FISH Probe	12q15
CT-LSP368	LSP CHFR FISH Probe	12q24.33
CT-STP12Q	12q Subtelomere FISH Probe (CHFR)	12q24.33
Chromosome 13		
CT-LSP403	LSP CDX2 FISH Probe	13q12.2
CT-LSP494	LSP BRCA2 FISH Probe	13q13.1
CT-LSP499	LSP BRCA2 FISH Probe	13q13.1
CT-CCP013	CCP13 (13q14) FISH Probe	13q14
CT-LSP066	LSP DLEU1 FISH Probe	13q14
OT   OD077	1.0D E0.V0.4 ELEIGIL D I	10 11 11





CT-LSP077 LSP FOXO1 5' FISH Probe

Catalog	Product Description	Locus
CT-LSP078	LSP FOXO1 3' FISH Probe	13q14.11
CT-LSP054	LSP RB1 FISH Probe	13q14.2
CT-LSP061	LSP D13S319 FISH Probe	13q14.2
CT-LSP059	LSP D13S25 FISH Probe	13q14.3
CT-LSP020	LSP MCF2L FISH Probe	13q34
CT-LSP060	LSP LAMP1 FISH Probe	13q34
CT-LSP258	LSP RASA3 FISH Probe	13q34
CT-LSP464	LSP ARHGEF7 FISH Probe	13q34
CT-STP13Q	13q Subtelomere FISH Probe (RASA3)	13q34

#### **Chromosome 14**

CT-CCP014	CCP14 (Pericentromeric) FISH Probe	14p11-q11
CT-LSP113	LSP IGH 5' FISH Probe	14q32.33
CT-LSP114	LSP IGH 3' FISH Probe	14q32.33
CT-LSP163	LSP TCL1A 5' FISH Probe	14q32.13
CT-LSP164	LSP TCL1A 3' FISH Probe	14q32.13
CT-LSP167	LSP TRA 5' FISH Probe	14q11.2
CT-LSP168	LSP TRA 3' FISH Probe	14q11.2
CT-LSP180	LSP IGH 5'-3' FISH Probe	14q32.33
CT-LSP429	LSP RP11-81F9 FISH Probe	14q11.2
CT-LSP431	LSP BCL2L2 FISH Probe	14q11.2
CT-LSP437	LSP RPPH1 FISH Probe	14q11.2
CT-STP14Q	14q Subtelomere FISH Probe (IGH 5')	14q32.33

#### **Chromosome 15**

CT-LSP467	LSP UBE3A FISH Probe	15q11
CT-LSP468	LSP SNRPN FISH Probe	15q11





Catalog	<b>Product Description</b>	Locus
CT-LSP251	LSP SMAD6 FISH Probe	15q22.31
CT-LSP188	LSP PML FISH Probe	15q24.1
CT-LSP302	LSP PML 5' FISH Probe	15q24.1
CT-LSP279	LSP NTRK3 5'-3' FISH Probe	15q25.3
CT-LSP334	LSP NTRK3 3' FISH Probe	15q25.3
CT-LSP335	LSP NTRK3 5' FISH Probe	15q25.3
CT-LSP369	LSP PCSK6 FISH Probe	15q26.3
CT-STP15Q	15q Subtelomere FISH Probe (PCSK6)	15q26.3
Chromosome 16		
CT-STP16P	16p Subtelomere FISH Probe (AXIN1)	16p13.3
CT-LSP007	LSP TSC2 FISH Probe	16p13.3
CT-LSP370	LSP AXIN1 FISH Probe	16p13.3
CT-LSP407	LSP CREBBP 5'-3' FISH Probe	16p13.3
CT-LSP417	LSP CREBBP 5' FISH Probe	16p13.3
CT-LSP418	LSP CREBBP 3' FISH Probe	16p13.3
CT-LSP447	LSP USP7 FISH Probe	16p13.2
CT-LSP065	LSP MYH11 FISH Probe	16p13.11
CT-LSP139	LSP MYH11 5' FISH Probe	16p13.11
CT-LSP140	LSP MYH11 3' FISH Probe	16p13.11
CT-LSP191	LSP MYH11 5'-3' FISH Probe	16p13.11
CT-LSP095	LSP FUS 5' FISH Probe	16p11.2
CT-LSP096	LSP FUS 3' FISH Probe	16p11.2
CT-LSP455	LSP CDH1 FISH Probe	16q22
CT-LSP127	LSP CBFB 5' FISH Probe	16q22.1
CT-LSP128	LSP CBFB 3' FISH Probe	16q22.1





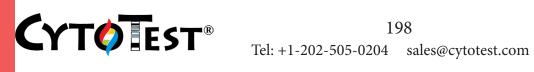
CT-LSP190 LSP CBFB 5'-3' FISH Probe

Catalog	<b>Product Description</b>	Locus
CT-LSP193	LSP MAF FISH Probe	16q23.2
CT-LSP441	LSP MAF 5' LR FISH Probe	16q23.2
CT-LSP442	LSP MAF 3' LR FISH Probe	16q23.2
CT-LSP443	LSP MAF 5'-3' LR FISH Probe	16q23.2
CT-LSP371	LSP FANCA FISH Probe	16q24.3
CT-STP16Q	16q Subtelomere FISH Probe (FANCA)	16q24.3
Chromosome 17		
CT-STP17P	17p Subtelomere FISH Probe (VPS53)	17p13.3
CT-LSP147	LSP YWHAE 5' FISH Probe	17p13.3
CT-LSP148	LSP YWHAE 3' FISH Probe	17p13.3
CT-LSP291	LSP PAFAH1B1 FISH Probe	17p13.3
CT-LSP372	LSP VPS53 FISH Probe	17p13.3
CT-LSP145	LSP USP6 5' FISH Probe	17p13.2
CT-LSP146	LSP USP6 3' FISH Probe	17p13.2
CT-LSP051	LSP TP53 FISH Probe	17p13.1
CT-LSP295	LSP TEKT3 FISH Probe	17p12
CT-LSP021	LSP FLCN FISH Probe	17p11.2
CT-LSP394	LSP SUZ12 3' FISH Probe	17q11.2
CT-LSP395	LSP SUZ12 5' FISH Probe	17q11.2
CT-LSP396	LSP SUZ12 FISH Probe	17q11.2
CT-LSP397	LSP SUZ12 5'-3' FISH Probe	17q11.2
CT-LSP451	LSP NF1 FISH Probe	17q11.2
CT-LSP001	LSP ERBB2 FISH Probe	17q12
CT-LSP226	LSP CDK12 FISH Probe	17q12
CT-LSP013	LSP TOP2A FISH Probe	17q21.2
CT-LSP161	LSP RARA 5' FISH Probe	17q21.2





Catalog	<b>Product Description</b>	Locus
CT-LSP162	LSP RARA 3' FISH Probe	17q21.2
CT-LSP217	LSP RARA FISH Probe	17q21.2
CT-LSP101	LSP ETV4 5' FISH Probe	17q21.31
CT-LSP102	LSP ETV4 3' FISH Probe	17q21.31
CT-LSP493	LSP BRCA1 FISH Probe	17q21.31
CT-LSP498	LSP BRCA1 FISH Probe	17q21.31
CT-LSP149	LSP COL1A1 5' FISH Probe	17q21.33
CT-LSP150	LSP COL1A1 3' FISH Probe	17q21.33
CT-LSP296	LSP COL1A1 5'-3' FISH Probe	17q21.33
CT-LSP263	LSP MPO FISH Probe	17q22
CT-LSP475	LSP HLF 5' FISH Probe	17q22
CT-LSP476	LSP HLF 3' FISH Probe	17q22
CT-LSP477	LSP HLF 5'-3' FISH Probe	17q22
CT-LSP175	LSP PRKAR1A FISH Probe	17q24.2
CT-LSP195	LSP ASPSCR1 5' FISH Probe	17q25.3
CT-LSP373	LSP CSNK1D FISH Probe	17q25.3
CT-STP17Q	17q Subtelomere FISH Probe (CSNK1D)	17q25.3
Chromosome 18		
CT-STP18P	18p Subtelomere FISH Probe (THOC1)	18p11.32
CT-LSP070	LSP TYMS FISH Probe	18p11.32
CT-LSP374	LSP THOC1 FISH Probe	18p11.32
CT-LSP083	LSP SS18 5' FISH Probe	18q11.2
CT-LSP084	LSP SS18 3' FISH Probe	18q11.2
CT-LSP400	LSP SMAD7 FISH Probe	18q21.1
CT-LSP019	LSP DCC FISH Probe	18q21.2
CT-LSP399	LSP SMAD4 FISH Probe	18q21.2





Catalog	Product Description	Locus
CT-LSP129	LSP MALT1 5' FISH Probe	18q21.32
CT-LSP130	LSP MALT1 3' FISH Probe	18q21.32
CT-LSP294	LSP MALT1 5'-3' FISH Probe	18q21.32
CT-LSP115	LSP BCL2 5' FISH Probe	18q21.33
CT-LSP116	LSP BCL2 3' FISH Probe	18q21.33
CT-LSP181	LSP BCL2 5'-3' FISH Probe	18q21.33
CT-LSP375	LSP RBFA FISH Probe	18q23
CT-STP18Q	18q Subtelomere FISH Probe (RBFA)	18q23
Chromosome 19		
CT-STP19P	19p Subtelomere FISH Probe (CDC34)	19p13.3
CT-LSP133	LSP TCF3 5' FISH Probe	19p13.3
CT-LSP134	LSP TCF3 3' FISH Probe	19p13.3
CT-LSP267	LSP MLLT1 5' FISH Probe	19p13.3
CT-LSP268	LSP MLLT1 3' FISH Probe	19p13.3
CT-LSP269	LSP MLLT1 5'-3' FISH Probe	19p13.3
CT-LSP317	LSP TCF3 5'-3' FISH Probe	19p13.3
CT-LSP376	LSP CDC34 FISH Probe	19p13.3
CT-LSP035	LSP ZNF443 FISH Probe	19p13.2
CT-LSP143	LSP EPOR 5' FISH Probe	19p13.2
CT-LSP144	LSP EPOR 3' FISH Probe	19p13.2
CT-LSP185	LSP EPOR FISH Probe	19p13.2
CT-LSP027	LSP TPM4 FISH Probe	19p13.12
CT-LSP488	LSP CCNE1 FISH Probe	19q12
CT-LSP327	LSP CIC 5'-3' FISH Probe	19q13
CT-LSP325	LSP CIC 5' FISH Probe	19q13.2
CT-LSP326	LSP CIC 3' FISH Probe	19q13.2





Catalog	Product Description	Locus
CT-LSP280	LSP BCL3 5' FISH Probe	19q13.32
CT-LSP281	LSP BCL3 3' FISH Probe	19q13.32
CT-LSP034	LSP GLTSCR1 FISH Probe	19q13.33
CT-LSP225	LSP CD37 FISH Probe	19q13.33
CT-LSP026	LSP C19MC FISH Probe	19q13.42
CT-LSP377	LSP ZNF544 FISH Probe	19q13.43
CT-STP19Q	19q Subtelomere FISH Probe (ZNF544)	19q13.43
Chromosome 20	)	
CT-STP20P	20p Subtelomere FISH Probe (SOX12)	20p13
CT-LSP378	LSP SOX12 FISH Probe	20p13
CT-LSP298	LSP NINL FISH Probe	20p11.21
CT-LSP221	LSP BCL2L1 FISH Probe	20q11.21
CT-LSP299	LSP PPP1R16B FISH Probe	20q11.23
CT-LSP056	LSP D20S108 FISH Probe	20q12
CT-LSP194	LSP MAFB FISH Probe	20q12
CT-LSP249	LSP PTPRT FISH Probe	20q12
CT-LSP074	LSP ZNF217 FISH Probe	20q13.2
CT-LSP379	LSP DNAJC5 FISH Probe	20q13.33
CT-STP20Q	20q Subtelomere FISH Probe (DNAJC5)	20q13.33
Chromosome 21	I	
CT-LSP456	LSP RUNX1 5' FISH Probe	21q22
CT-LSP457	LSP RUNX1 3' FISH Probe	21q22
CT-LSP189	LSP RUNX1 FISH Probe	21q22.12
CT-LSP048	LSP DSCR8 FISH Probe	21q22.2
CT-LSP093	LSP ERG 5' FISH Probe	21q22.2





Catalog	Product Description	Locus
CT-LSP094	LSP ERG 3' FISH Probe	21q22.2
CT-CCP021	CCP21 (21q22) FISH Probe	21q22.2
CT-LSP105	LSP TMPRSS2 5' FISH Probe	21q22.3
CT-LSP106	LSP TMPRSS2 3' FISH Probe	21q22.3
CT-LSP213	LSP TMPRSS2 FISH Probe	21q22.3
CT-LSP380	LSP PRMT2 FISH Probe	21q22.3
CT-STP21Q	21q Subtelomere FISH Probe (PRMT2)	21q22.3
Chromosome 22		

CT-CCP022	CCP22 (22q13) FISH Probe	22p11-q11
CT-LSP049	LSP D22S75 FISH Probe	22q11.2
CT-LSP046	LSP TBX1 FISH Probe	22q11.21
CT-LSP308	LSP IGL 5' FISH Probe	22q11.22
CT-LSP309	LSP IGL 3' FISH Probe	22q11.22
CT-LSP314	LSP IGL 5'-3' FISH Probe	22q11.22
CT-LSP178	LSP BCR FISH Probe	22q11.23
CT-LSP434	LSP SMARCB1 FISH Probe	22q11.23
CT-LSP435	LSP SMARCB1 5' FISH Probe	22q11.23
CT-LSP436	LSP SMARCB1 3' FISH Probe	22q11.23
CT-LSP200	LSP MN1 5' FISH Probe	22q12.1
CT-LSP201	LSP MN1 3' FISH Probe	22q12.1
CT-LSP097	LSP EWSR1 5' FISH Probe	22q12.2
CT-LSP098	LSP EWSR1 3' FISH Probe	22q12.2
CT-LSP287	LSP EWSR1 5'-3' FISH Probe	22q12.2
CT-LSP432	LSP NF2 FISH Probe	22q12.2
CT-LSP151	LSP PDGFB 5' FISH Probe	22q13.1
CT-LSP152	LSP PDGFB 3' FISH Probe	22q13.1
CT-LSP297	LSP PDGFB 5'-3' FISH Probe	22q13.1



Catalog	Product Description	Locus
CT-STP22Q	22q Subtelomere FISH Probe (ARSA)	22q13.33
CT-LSP047	LSP ARSA FISH Probe	22q13.33
Chromosome X		
CT-LSP319	LSP BCOR 5' FISH Probe	Xp11.4
CT-LSP320	LSP BCOR 3' FISH Probe	Xp11.4
CT-LSP321	LSP BCOR 5'-3' FISH Probe	Xp11.4
CT-LSP087	LSP TFE3 5' FISH Probe	Xp11.23
CT-LSP088	LSP TFE3 3' FISH Probe	Xp11.23
CT-LSP322	LSP CCNB3 5' FISH Probe	Xp11.22
CT-LSP323	LSP CCNB3 3' FISH Probe	Xp11.22
CT-LSP324	LSP CCNB3 5'-3' FISH Probe	Xp11.22
CT-LSP218	LSP AR FISH Probe	Xq12
CT-LSP198	LSP NONO FISH Probe	Xq13.1
CT-LSP008	LSP XIST FISH Probe	Xq13.2
CT-LSP220	LSP ATRX FISH Probe	Xq21.1
CT-LSP500	LSP TAZ FISH Probe	Xq28
Chromosome Y		
CT-LSP045	LSP SRY FISH Probe	Yp11.31
CT-LSP216	LSP SHOX FISH Probe	Xp22.23, Yp11.2
CT-LSP063	LSP CRLF2 FISH Probe	Xp22.33/Yp11.2
CT-LSP209	LSP CRLF2 5' FISH Probe	Xp22.33/Yp11.2
CT-LSP210	LSP CRLF2 3' FISH Probe	Xp22.33/Yp11.2
CT-STPXYP	XpYp Subtelomere FISH Probe (SHOX, CRLF2)	Xp22.33/Yp11.2
CT-LSP381	LSP VAMP7 FISH Probe	Xq28/Yq12
CT-STPXYQ	XqYq Subtelomere FISH Probe (VAMP7)	Xq28/Yq12

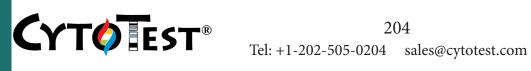




## Notes











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