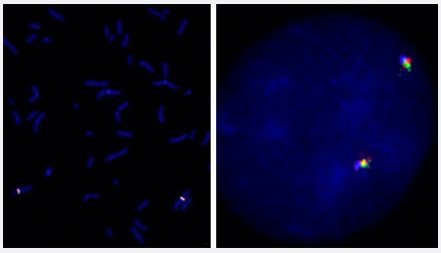
PDGFRA/FIP1L1 3-Color Rearrangement FISH Probe

Catalog # FT0008 Size 200 uL

Applications



Hybridization position of the probes on the chromosome.

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Specification

Product Description	Labeled FISH probes for identification of gene translocation using Fluorescent In Situ Hybridization T echnique. (Technology).
Probe 1	**Name:** SCFD2 **Size:** Approximately 840kb **Fluorophore:** FITC **Location:** 4q12
Probe 2	**Name:** LNX **Size:** Approximately 560kb **Fluorophore:** Texas Red **Location:** 4q12

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Probe 3	**Name:** PDGFRA/KIT **Size:** Approximately 860kb **Fluorophore:** DEAC **Location:** 4q12
Origin	Human
Source	Genomic DNA
Reactivity	Human
Notice	We **strongly recommend** the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: KA2375 or KA2691) for the pretreatment of Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections.
Regulation Status	For research use only (RUO)
Quality Control Testing	Representative images of normal human cell (lymphocyte) stain with the dual color FISH probe. The l eft image is chromosomes at metaphase, and the right image is an interphase nucleus.
Supplied Products	DAPI Counterstain (1500 ng/mL) 250 uL
Storage Instruction	Store at 4°C in the dark.
Note	Hybridization position of the probes on the chromosome. Hybridization position of the probes on the chromosome.
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening

Applications

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

Gene Info — PDGFRA

Entrez GeneID	5156
Gene Name	PDGFRA
Gene Alias	CD140A, MGC74795, PDGFR2, Rhe-PDGFRA
Gene Description	platelet-derived growth factor receptor, alpha polypeptide
Omim ID	173490 606764 607685

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Gene Ontology	Hyperlink
Gene Summary	This gene encodes a cell surface tyrosine kinase receptor for members of the platelet-derived gro wth factor family. These growth factors are mitogens for cells of mesenchymal origin. The identity of the growth factor bound to a receptor monomer determines whether the functional receptor is a homodimer or a heterodimer, composed of both platelet-derived growth factor receptor alpha and beta polypeptides. Studies in knockout mice, where homozygosity is lethal, indicate that the alpha form of the platelet-derived growth factor receptor is particularly important for kidney development since mice heterozygous for the receptor exhibit defective kidney phenotypes. [provided by RefSe q
Other Designations	FIP1L1/PDGFRA fusion protein|platelet-derived growth factor receptor alpha|rearranged-in-hyper eosinophilia-platelet derived growth factor receptor alpha fusion protein

Gene Info — FIP1L1

Entrez GeneID	81608
Gene Name	FIP1L1
Gene Alias	DKFZp586K0717, FLJ33619, Rhe
Gene Description	FIP1 like 1 (S. cerevisiae)
Omim ID	607686
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a subunit of the CPSF (cleavage and polyadenylation specificity factor) compl ex that polyadenylates the 3' end of mRNA precursors. This gene, the homolog of yeast Fip1 (fact or interacting with PAP), binds to U-rich sequences of pre-mRNA and stimulates poly(A) polymer ase activity. Its N-terminus contains a PAP-binding site and its C-terminus an RNA-binding domai n. An interstitial chromosomal deletion on 4q12 creates an in-frame fusion of human genes FIP1L 1 and PDGFRA (platelet-derived growth factor receptor, alpha). The FIP1L1-PDGFRA fusion gen e encodes a constitutively activated tyrosine kinase that joins the first 233 amino acids of FIP1L1 to the last 523 amino acids of PDGFRA. This gene fusion and chromosomal deletion is the cause of some forms of idiopathic hypereosinophilic syndrome (HES). This syndrome, recently reclassifi ed as chronic eosinophilic leukemia (CEL), is responsive to treatment with tyrosine kinase inhibit ors. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq
Other Designations	FIP1 like 1|rearranged in hypereosinophilia

Pathway

- Calcium signaling pathway
- Colorectal cancer

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- Cytokine-cytokine receptor interaction
- Endocytosis
- Focal adhesion
- Gap junction
- Glioma
- MAPK signaling pathway
- Melanoma
- Pathways in cancer
- Prostate cancer
- Regulation of actin cytoskeleton

Disease

- Acute Disease
- Adenocarcinoma
- Alzheimer disease
- Aneuploidy
- Asthma
- Brain Neoplasms
- Carcinoma
- Cardiovascular Diseases
- Cleft Lip
- Cleft Palate
- Coronary Artery Disease
- Coronary Disease
- Diabetes Complications
- Diabetes Mellitus

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- Disease Progression
- Edema
- Esophageal Neoplasms
- Gastrointestinal Stromal Tumors
- Genetic Predisposition to Disease
- Glioblastoma
- Hyperparathyroidism
- Leukemia
- Liver Neoplasms
- Lymphatic Metastasis
- Malignant melanoma
- Meningomyelocele
- Metabolic Syndrome X
- Neoplasm Recurrence
- Neoplasms
- Neural Tube Defects
- Osteoporosis
- Pancreatic cancer
- Pancreatic Neoplasms
- Spinal Dysraphism
- Subdural Effusion
- Tobacco Use Disorder
- Tooth Abnormalities
- Uterine Cervical Neoplasms
- Vitiligo

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