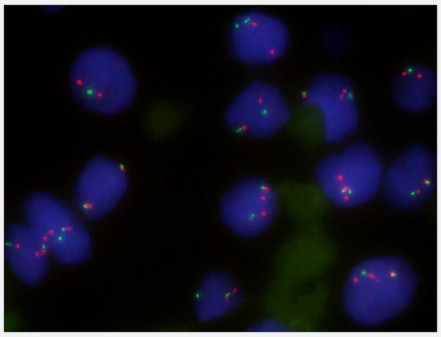
Sm Size

PDGFRA/CEN4p FISH Probe

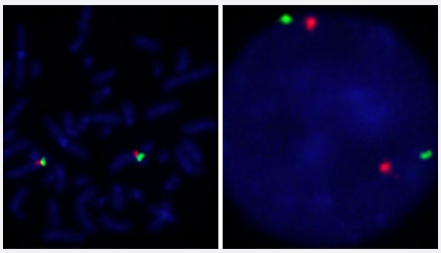
Catalog # FG0087 Size 200 uL, 100 uL

Applications



Fluorescent *In Situ* Hybridization (Formalin/PFA-fixed paraffin-embedded sections)

Human lung squamous cell carcinoma (FFPE) stained with PDGFRA/CEN4p FISH Probe. Human lung squamous cell carcinoma showed no PDGFRA gene amplification.



Hybridization position of the probes on the chromosome:

Hybridization position of the probes on the chromosome:

Specification

Product Description	Labeled FISH probes for identification of gene amplification using Fluorescent In Situ Hybridization T echnique. (Technology).

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Probe 1	**Name:** PDGFRA **Size:** Approximately 240kb **Fluorophore:** Texas Red **Location:** 4q12
Probe 2	**Name:** CEN4p **Size:** Approximately 560kb **Fluorophore:** FITC **Location:** 4p13
Probe Gap	The gap between two probes is approximately 9200 kb.
Origin	Human
Source	Genomic DNA
Reactivity	Human
Form	Liquid
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) 125 uL for each 100 uL FISH Probe
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 (Formalin/PFA-fixed paraffin-embedded sections)

  Human lung squamous cell carcinoma (FFPE) stained with PDGFRA/CEN4p FISH Probe. Human lung squamous cell carcinoma showed no PDGFRA gene amplification.

  Protocol Download

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

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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
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

Publication Reference

- Targeted therapies plus radiotherapy for diffuse intrinsic pontine glioma: the randomized phase 2 BIOMEDE trial.

  Marie-Anne Debily, Gwenael Le Teuff, Thomas Kergrohen, Pascale Varlet, David Castel, Pierre Leblond, Darren Hargrave, Karsten Nysom, Klas Blomgren, Geoffrey Brian McCowage, Francisco Bautista, Dannis van Vuurden, Chris Jones, Alan Mackay, Elisa Izquierdo, David S Ziegler, Angokai Moussa, Emilie Barret, Stephanie Puget, Kevin Beccaria, Kristian Aquilina, Laurent Riffaud, Stephanie Bolle, Samuel Abbou, Anne-Isabelle Bertozzi, Emilie De Carli, Nathalie Boddaert, Volodia Dangouloff-Ros, Raphael Calm

  Nature Medicine 2026 Jun; 32(6):2201.

  Application: FISH, Human, Brainstem tumors

- Platelet-derived growth factor receptor α/glial fibrillary acidic protein expressing peritumoral astrocytes associate with shorter median overall survival in glioblastoma patients.

  Leiss L, Mega A, Olsson Bontell T, Nistér M, Smits A, Corvigno S, Rahman MA, Enger PØ, Miletic H, Östman A.

  Glia 2020 May; 68(5):979.

  Application: FISH, Human, Human glioblastoma cells

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- Histone H3F3A and HIST1H3B K27M mutations define two subgroups of diffuse intrinsic pontine gliomas with different prognosis and phenotypes.

  Castel D, Philippe C, Calmon R, Le Dret L, Truffaux N, Boddaert N, Pages M, Taylor KR, Saulnier P, Lacroix L, Mackay A, Jones C, Sainte-Rose C, Blauwblomme T, Andreiuolo F, Puget S, Grill J, Varlet P, Debily MA.

  Acta Neuropathologica 2015 Dec; 130(6):815.

  Application: FISH, Human, Gliomas

Pathway

- Calcium signaling pathway
- Colorectal cancer
- 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

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- Brain Neoplasms
- Carcinoma
- Cardiovascular Diseases
- Cleft Lip
- Cleft Palate
- Coronary Artery Disease
- Coronary Disease
- Diabetes Complications
- Diabetes Mellitus
- 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

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- Pancreatic cancer
- Pancreatic Neoplasms
- Spinal Dysraphism
- Subdural Effusion
- Tobacco Use Disorder
- Tooth Abnormalities
- Uterine Cervical Neoplasms
- Vitiligo

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