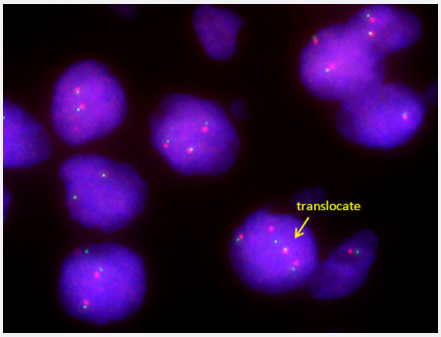
KIF5B/RET SY Translocation FISH Probe

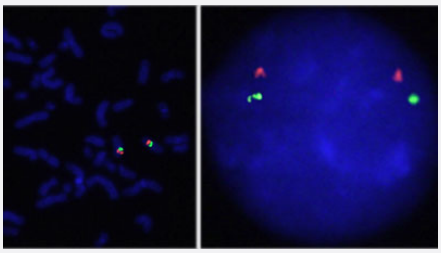
Catalog # FT0006 Size 200 uL

Applications



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

Human lung, adenosquamous cell carcinoma (FFPE) stained with KIF5B/RET SY Translocation FISH Probe . Human lung, adenosquamous cell carcinoma showed KIF5B/RET SY Translocation.



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 translocation using Fluorescent In Situ Hybridization T echnique. (Technology).

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Probe 1	**Name:** KIF5B **Size:** Approximately 620kb **Fluorophore:** Texas Red **Location:** 10p11.2
Probe 2	**Name:** RET **Size:** Approximately 630kb **Fluorophore:** FITC **Location:** 10q11.2
Probe Gap	The gap between two probes is approximately 10,500 kb.
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 (Formalin/PFA-fixed paraffin-embedded sections)

  Human lung, adenosquamous cell carcinoma (FFPE) stained with KIF5B/RET SY Translocation FISH Probe . Human lung, adenosquamous cell carcinoma showed KIF5B/RET SY Translocation.

  Protocol Download

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

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Gene Info — KIF5B

Entrez GeneID	3799
Gene Name	KIF5B
Gene Alias	KINH, KNS, KNS1, UKHC
Gene Description	kinesin family member 5B
Omim ID	602809
Gene Ontology	Hyperlink
Other Designations	kinesin 1 (110-120kD)|kinesin heavy chain

Gene Info — RET

Entrez GeneID	5979
Gene Name	RET
Gene Alias	CDHF12, HSCR1, MEN2A, MEN2B, MTC1, PTC, RET-ELE1, RET51
Gene Description	ret proto-oncogene
Omim ID	142623 155240 162300 164761 171300 171400 209880
Gene Ontology	Hyperlink
Gene Summary	This gene, a member of the cadherin superfamily, encodes one of the receptor tyrosine kinases, which are cell-surface molecules that transduce signals for cell growth and differentiation. This ge ne plays a crucial role in neural crest development, and it can undergo oncogenic activation in viv o and in vitro by cytogenetic rearrangement. Mutations in this gene are associated with the disord ers multiple endocrine neoplasia, type IIA, multiple endocrine neoplasia, type IIB, Hirschsprung dis ease, and medullary thyroid carcinoma. Two transcript variants encoding different isoforms have been found for this gene. Additional transcript variants have been described but their biological va lidity has not been confirmed. [provided by RefSeq
Other Designations	RET transforming sequence|cadherin family member 12|hydroxyaryl-protein kinase|oncogene RE T|receptor tyrosine kinase|ret proto-oncogene (multiple endocrine neoplasia and medullary thyroid carcinoma 1, Hirschsprung disease)

Publication Reference

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- Analysis of primary synchronous breast invasive ductal carcinoma and lung adenocarcinoma with next-generation sequencing: A case report.

  Di Wu, Jinyu Yu, Liang Guo, Xiaofei Wei, Zhuang Tian, Xiumei Duan.

  Oncology Letters 2022 Nov; 25(1):18.

  Application: FISH-P, Human, Human lung, Human lymph node

- Detection of RET (rearranged during transfection) variants and their downstream signal molecules in RET rearranged lung adenocarcinoma patients.

  Kim JO, Shin JY, Kim MY, Son KH, Jung CK, Kim TJ, Kim SY, Park JK, Sung SW, Bae SJ, Min HJ, Kang JH.

  Surgical Oncology 2018 Mar; 27(1):106.

  Application: FISH, Human, Tissue microarrays (TMAs)

- KIF5B-RET Fusion gene may coincide oncogenic mutations of EGFR or KRAS gene in lung adenocarcinomas.

  Kim JO, Lee J, Shin JY, Oh JE, Jung CK, Park JK, Sung SW, Bae SJ, Min HJ, Kim D, Park JY, Kang JH.

  Diagnostic Pathology 2015 Aug; 10:143.

  Application: FISH, Human, Adenocarcinoma

- RET expression and detection of KIF5B/RET gene rearrangements in Japanese lung cancer.

  Sasaki H, Shimizu S, Tani Y, Maekawa M, Okuda K, Yokota K, Shitara M, Hikosaka Y, Moriyama S, Yano M, Fujii Y.

  Cancer Medicine 2012 Aug; 1(1):68.

  Application: Func, Human, Human lung cancer

Pathway

- Endocytosis
- Pathways in cancer
- Thyroid cancer

Disease

- Adenocarcinoma
- Adenoma
- Adrenal Gland Neoplasms
- Alzheimer Disease

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- Alzheimer Disease
- Atherosclerosis
- Carcinoma
- Cleft Lip
- Cleft Palate
- Digestive System Abnormalities
- Disease Progression
- Down Syndrome
- Endocrine Gland Neoplasms
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Glomus Tumor
- Hashimoto Disease
- Head and Neck Neoplasms
- Hippel-Lindau Disease
- Hirschsprung Disease
- Hydronephrosis
- Hyperplasia
- Hypertension
- Intestinal Diseases
- Kidney Diseases
- Lung Neoplasms
- Lymphatic Metastasis
- Macular Degeneration
- Multiple endocrine neoplasia

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- Multiple Endocrine Neoplasia Type 2a
- Multiple Endocrine Neoplasia Type 2b
- Necrosis
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Neurofibromatosis
- Nondisjunction
- Pancreatic cancer
- Pancreatic Neoplasms
- Paraganglioma
- Parkinson disease
- Pheochromocytoma
- Prostate cancer
- Prostatic Neoplasms
- Pulmonary Disease
- Recurrence
- Schizophrenia
- Sleep Apnea
- Sudden Infant Death
- Syndrome
- Taste
- Thyroid Diseases
- Thyroid Neoplasms
- Tobacco Use Disorder
- Urea Cycle Disorders

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- Urinary Bladder Neoplasms
- Urogenital Abnormalities
- Vesico-Ureteral Reflux
- Vitamin A Deficiency
- von Hippel-Lindau Disease
- Von Hippel-Lindau syndrome
- Werner syndrome

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