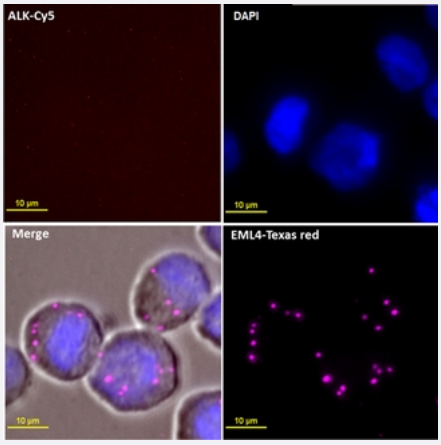
mutaFISH™ EML4wt ALKwt RNA Probes

Catalog # FP0014 Size 1 Probe Set

Applications



mutation specific, Fluorescence *In Situ* Hybridization (Cells)

mutaFISH™ staining was performed *in situ* in human H1975 cells. EML4 was detected via purple signal (Texas Red); ALK was not detected.

Specification

Product Description	mutaFISH™ EML4wt ALKwt RNA Probes is designed to detect human EML4 and ALK gene rearran gement on single strand RNA in cells using padlock probe and *in situ* rolling-circle amplification tech nology.
Reactivity	Human
Supplied Products	Content: 1. RT EML4 Primer 2. RT ALK Primer 3. mutaFISH™ EML4wt RNA Probe 4. mutaFISH™ ALKwt RNA Probe 5. Detection Probe-6-HEX 6. Detection Probe-Texas Red X

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Technology	mutaFISH™ (mutation-specific Fluorescence *In Situ* Hybridization)
Comparison	FISH Probes vs mutaFISH™ Probes
Fluorophore	6-HEX (Excitation Peak (nm): 533; Emission Peak (nm): 559) Texas Red X (Excitation Peak (nm): 595; Emission Peak 613)
Probe Position	
Regulatory Status	For research use only (RUO)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	We recommend mutaFISH™ RNA Accessory Kit (Catalog #: KA4915) which provides necessary re agents and enzymes for *in situ* reverse transcription, RNA digestion, mutaFISH™ hybridization, ligati on and amplication prior to mutaFISH™.
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening
Video	

Applications

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Gene Info — ALK

Entrez GeneID	238
Gene Name	ALK
Gene Alias	CD246, Ki-1, TFG/ALK
Gene Description	anaplastic lymphoma receptor tyrosine kinase

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Omim ID	105590
Gene Ontology	Hyperlink
Gene Summary	The 2;5 chromosomal translocation is frequently associated with anaplastic large cell lymphomas (ALCLs). The translocation creates a fusion gene consisting of the ALK (anaplastic lymphoma kin ase) gene and the nucleophosmin (NPM) gene: the 3' half of ALK, derived from chromosome 2, is fused to the 5' portion of NPM from chromosome 5. A recent study shows that the product of the N PM-ALK fusion gene is oncogenic. The deduced amino acid sequences reveal that ALK is a nov el receptor protein-tyrosine kinase having a putative transmembrane domain and an extracellular domain. These sequences are absent in the product of the transforming NPM-ALK gene. ALK sh ows the greatest sequence similarity to LTK (leukocyte tyrosine kinase). ALK plays an important r ole in the development of the brain and exerts its effects on specific neurons in the nervous syste m. [provided by RefSeq
Other Designations	ALK tyrosine kinase receptor|CD246 antigen|anaplastic lymphoma kinase (Ki-1)|anaplastic lymph oma kinase Ki-1

Gene Info — EML4

Entrez GeneID	27436
Gene Name	EML4
Gene Alias	C2orf2, DKFZp686P18118, ELP120, FLJ10942, FLJ32318, ROPP120
Gene Description	echinoderm microtubule associated protein like 4
Omim ID	607442
Gene Ontology	Hyperlink
Other Designations	-

Disease

- Adenocarcinoma
- Adenocarcinoma
- Carcinoma
- Genetic Predisposition to Disease
- Kidney Failure
- Lung Neoplasms

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- Lung Neoplasms
- Multiple Sclerosis
- Schizophrenia
- Tobacco Use Disorder

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