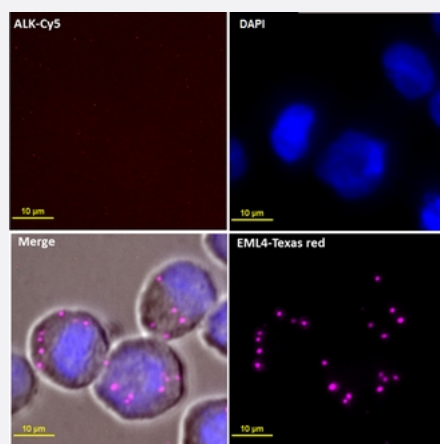


# mutaFISH™ EML4wt ALKwt RNA Probes

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 rearrangement on single strand RNA in cells using padlock probe and *in situ* rolling-circle amplification technology.

### Reactivity

Human

### Supplied Product

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

Technology	<a href="#">mutaFISH™ (mutation-specific Fluorescence <i>In Situ</i> Hybridization)</a>
Comparison	<a href="#">FISH Probes vs mutaFISH™ Probes</a>
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 #: <a href="#">KA4915</a> ) which provides necessary reagents and enzymes for <i>in situ</i> reverse transcription, RNA digestion, mutaFISH™ hybridization, ligation and amplification prior to mutaFISH™.
Video	

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## Gene Info — ALK

Entrez GeneID	<a href="#">238</a>
Gene Name	ALK
Gene Alias	CD246, Ki-1, TFG/ALK
Gene Description	anaplastic lymphoma receptor tyrosine kinase
Omim ID	<a href="#">105590</a>

## 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 kinase) 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 NPM-ALK fusion gene is oncogenic. The deduced amino acid sequences reveal that ALK is a novel 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 shows the greatest sequence similarity to LTK (leukocyte tyrosine kinase). ALK plays an important role in the development of the brain and exerts its effects on specific neurons in the nervous system. [provided by RefSeq]

## Other Designations

ALK tyrosine kinase receptor|CD246 antigen|anaplastic lymphoma kinase (Ki-1)|anaplastic lymphoma 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

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## Disease

- [Adenocarcinoma](#)
- [Adenocarcinoma](#)
- [Carcinoma](#)
- [Genetic Predisposition to Disease](#)
- [Kidney Failure](#)
- [Lung Neoplasms](#)
- [Lung Neoplasms](#)

- [Multiple Sclerosis](#)
- [Schizophrenia](#)
- [Tobacco Use Disorder](#)