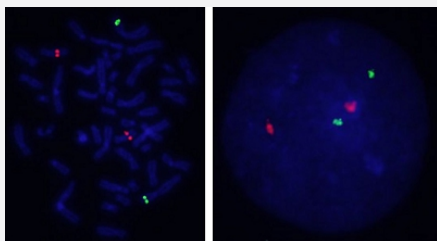


VCL/ALK DY Translocation FISH Probe

Catalog # FT0019 Size 200 uL, 100 uL

Applications



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 Technique. (Technology).
Probe 1	Name: VCL Size: Approximately 1,140kb Fluorophore: Texas Red Location: 10q22.1-23
Probe 2	Name: ALK Size: Approximately 1,220kb Fluorophore: FITC Location: 2p23
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 left image is chromosomes at metaphase, and the right image is an interphase nucleus.
Supplied Product	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:

Applications

- Fluorescent In Situ Hybridization (Cell)

[Protocol Download](#)

Gene Info — ALK

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

Entrez GeneID

[7414](#)

Gene Name

VCL

Gene Alias

CMD1W, MVCL

Gene Description

vinculin

Omim ID

[193065 611407](#)

Gene Ontology

[Hyperlink](#)

Gene Summary

Vinculin is a cytoskeletal protein associated with cell-cell and cell-matrix junctions, where it is thought to function as one of several interacting proteins involved in anchoring F-actin to the membrane. Defects in VCL are the cause of cardiomyopathy dilated type 1W. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Multiple alternatively spliced transcript variants have been found for this gene, but the biological validity of some variants has not been determined. [provided by RefSeq]

Other Designations

OTTHUMP00000019861|OTTHUMP00000043885|metavinculin

Pathway

- [Adherens junction](#)
- [Focal adhesion](#)
- [Leukocyte transendothelial migration](#)
- [Regulation of actin cytoskeleton](#)

Disease

- [Adenocarcinoma](#)
- [Alzheimer Disease](#)
- [Carcinoma](#)
- [Cardiomyopathy](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Diabetes Mellitus](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Kidney Failure](#)
- [Lung Neoplasms](#)
- [Multiple Sclerosis](#)
- [Schizophrenia](#)
- [Tobacco Use Disorder](#)