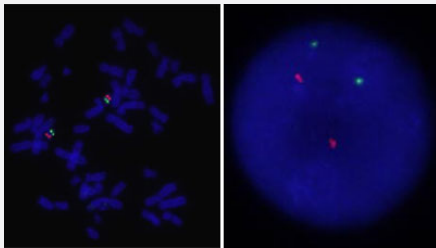


ACTN4/CEN19p FISH Probe

Catalog # FG0022 Size 200 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 amplification using Fluorescent In Situ Hybridization Technique. (Technology).
Probe 1	Name: ACTN4 Size: Approximately 210kb Fluorophore: Texas Red Location: 19q13
Probe 2	Name: CEN19p Size: Approximately 570kb Fluorophore: FITC Location: 19p13.11
Probe Gap	The gap between two probes is approximately 17,000 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 left image is chromosomes at metaphase, and the right image is an interphase nucleus.
Supplied Product	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.

Applications

- Fluorescent In Situ Hybridization (Cell)

[Protocol Download](#)

Gene Info — ACTN4

Entrez GeneID	81
Gene Name	ACTN4
Gene Alias	ACTININ-4, DKFZp686K23158, FSGS, FSGS1
Gene Description	actinin, alpha 4
Omim ID	603278 604638
Gene Ontology	Hyperlink

Gene Summary

Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a nonmuscle, alpha actinin isoform which is concentrated in the cytoplasm, and is thought to be involved in metastatic processes. Mutations in this gene have been associated with focal and segmental glomerulosclerosis. [provided by RefSeq]

Other Designations

actinin alpha4 isoform

Publication Reference

- [Copy number gain of ACTN4 is associated with poor prognosis in patients with upper urinary tract urothelial carcinoma.](#)

Kazuki Kawamura, Kosuke Miyai, Kimiya Sato, Susumu Matsukuma, Kazufumi Honda, Keiichi Ito, Hitoshi Tsuda.
Cancer Science 2023 Aug; 114(8):3411.

Application: FISH-P, Human, kidney, ureter

Pathway

- [Adherens junction](#)
- [Arrhythmogenic right ventricular cardiomyopathy \(ARVC\)](#)
- [Focal adhesion](#)
- [Leukocyte transendothelial migration](#)
- [Regulation of actin cytoskeleton](#)
- [Systemic lupus erythematosus](#)
- [Tight junction](#)

Disease

- [Alport syndrome](#)
- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)

- [Diabetic Nephropathies](#)
- [Edema](#)
- [Genetic Predisposition to Disease](#)
- [Glomerulosclerosis](#)
- [Kidney Diseases](#)
- [Proteinuria](#)