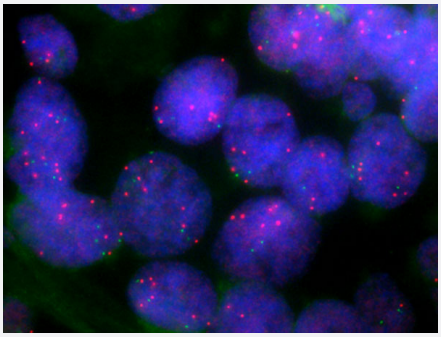
Sm Size

PIK3CA/CEN3q FISH Probe

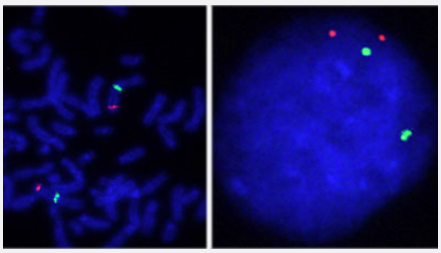
Catalog # FG0073 Size 200 uL, 100 uL

Applications



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

Human lung adenosquamous cell carcinoma (FFPE) stained with PIK3CA/CEN3q FISH Probe. Human lung adenosquamous cell carcinoma showed PIK3CA gene amplification.



Hybridization position of the probes on the chromosome:

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Specification

Product Description	Labeled FISH probes for identification of gene amplification using Fluorescent In Situ Hybridization T echnique. (Technology).

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Probe 1	**Name:** PIK3CA **Size:** Approximately 280kb **Fluorophore:** Texas Red **Location:** 3q26.32
Probe 2	**Name:** CEN3q **Size:** Approximately 500kb **Fluorophore:** FITC **Location:** 3q12.1
Probe Gap	The gap between two probes is approximately 82,800 kb.
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 l eft image is chromosomes at metaphase, and the right image is an interphase nucleus.
Supplied Products	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:
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 PIK3CA/CEN3q FISH Probe. Human lung adenosquamous cell carcinoma showed PIK3CA gene amplification.

  Protocol Download

- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

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Gene Info — PIK3CA

Entrez GeneID	5290
Gene Name	PIK3CA
Gene Alias	MGC142161, MGC142163, PI3K, p110-alpha
Gene Description	phosphoinositide-3-kinase, catalytic, alpha polypeptide
Omim ID	114480 114500 171834 604370
Gene Ontology	Hyperlink
Gene Summary	Phosphatidylinositol 3-kinase is composed of an 85 kDa regulatory subunit and a 110 kDa catalyt ic subunit. The protein encoded by this gene represents the catalytic subunit, which uses ATP to p hosphorylate PtdIns, PtdIns4P and PtdIns(4,5)P2. This gene has been found to be oncogenic and has been implicated in cervical cancers. [provided by RefSeq
Other Designations	PI3-kinase p110 subunit alpha|PtdIns-3-kinase p110|phosphatidylinositol 3-kinase, catalytic, 110-KD, alpha|phosphatidylinositol 3-kinase, catalytic, alpha polypeptide|phosphatidylinositol-4,5-bisp hosphate 3-kinase catalytic subunit, alpha isoform

Publication Reference

- PIK3CA Amplification Associates with Aggressive Phenotype but Not Markers of AKT-MTOR Signaling in Endometrial Carcinoma.

  Holst F, Werner HMJ, Mjøs S, Hoivik EA, Kusonmano K, Wik E, Berg A, Birkeland E, Gibson WJ, Halle MK, Trovik J, Cherniack AD, Kalland KH, Mills GB, Singer CF, Krakstad C, Beroukhim R, Salvesen HB.

  Clinical Cancer Research 2019 Jan; 25(1):334.

  Application: FISH, Human, Human endometrial tumor samples

- PIK3CA mutation in Chinese patients with lung squamous cell carcinoma.

  Yu J, Bai H, Wang Z, Wei Z, Ding X, Duan J, Yang L, Wu M, Wang Y, Wang J.

  Chinese Journal of Cancer Research 2013 Aug; 25(4):416.

  Application: FISH, Human, Lung squamous cell carcinoma

Pathway

- Acute myeloid leukemia
- Apoptosis

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- B cell receptor signaling pathway
- Chemokine signaling pathway
- Chronic myeloid leukemia
- Colorectal cancer
- Endometrial cancer
- ErbB signaling pathway
- Fc epsilon RI signaling pathway
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- Glioma
- Inositol phosphate metabolism
- Insulin signaling pathway
- Jak-STAT signaling pathway
- Leukocyte transendothelial migration
- Melanoma
- mTOR signaling pathway
- Natural killer cell mediated cytotoxicity
- Neurotrophin signaling pathway
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer
- Phosphatidylinositol signaling system
- Prostate cancer
- Regulation of actin cytoskeleton
- Renal cell carcinoma
- Small cell lung cancer

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- T cell receptor signaling pathway
- Toll-like receptor signaling pathway
- Type II diabetes mellitus
- VEGF signaling pathway

Disease

- Adenocarcinoma
- Adenoma
- Adenomatous Polyposis Coli
- Alzheimer disease
- Astrocytoma
- Barrett Esophagus
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Carcinoma in Situ
- Cardiovascular Diseases
- Colon cancer
- Colonic Neoplasms
- Colonic Polyps
- Colorectal Neoplasms
- Common Bile Duct Neoplasms
- Cystadenocarcinoma
- Diabetes Complications
- Diabetes Mellitus

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- Disease Progression
- Drug Toxicity
- Edema
- Endometrial Neoplasms
- Endometriosis
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Hepatitis C
- HIV Infections
- Hypercholesterolemia
- Liver Neoplasms
- Lung Neoplasms
- Lymphatic Metastasis
- Metabolic Syndrome X
- Microsatellite Instability
- Nasopharyngeal Neoplasms
- Necrosis
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Obesity
- Osteoporosis
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer

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- Pancreatic Neoplasms
- Precursor T-Cell Lymphoblastic Leukemia-Lymphoma
- Prostatic Neoplasms
- Psychiatric Status Rating Scales
- Rectal Neoplasms
- Recurrence
- Retinal Neoplasms
- Retinoblastoma
- Schizophrenia
- Stomach Neoplasms
- Thyroid Neoplasms
- Uterine Cervical Neoplasms

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