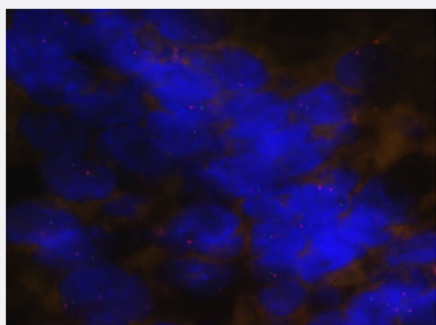


PTEN/CEN10p FISH Probe

Catalog # FG0019

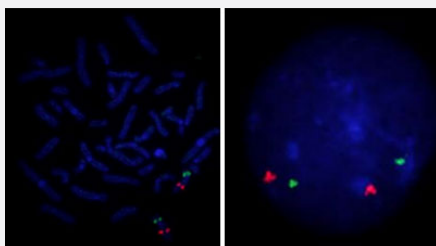
Size 200 uL, 100 uL

Applications



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

Human prostate carcinoma (FFPE) stained with PTEN/CEN10p FISH Probe. Human prostate carcinoma showed no PTEN gene amplification.



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: PTEN Size: Approximately 470kb Fluorophore: Texas Red Location: 10q23
Probe 2	Name: CEN10p Size: Approximately 640kb Fluorophore: FITC Location: 10p11.22
Probe Gap	The gap between two probes is approximately 57,500 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 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](#)

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

Human prostate carcinoma (FFPE) stained with PTEN/CEN10p FISH Probe. Human prostate carcinoma showed no PTEN gene amplification.

[Protocol Download](#)

Gene Info — PTEN

Entrez GeneID	5728
Gene Name	PTEN
Gene Alias	10q23del, BZS, MGC11227, MHAM, MMAC1, PTEN1, TEP1
Gene Description	phosphatase and tensin homolog
Omim ID	137800 153480 158350 174900 176807 176920 188470 276950 601728 605309 607174
Gene Ontology	Hyperlink
Gene Summary	This gene was identified as a tumor suppressor that is mutated in a large number of cancers at high frequency. The protein encoded this gene is a phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase. It contains a tensin like domain as well as a catalytic domain similar to that of the dual specificity protein tyrosine phosphatases. Unlike most of the protein tyrosine phosphatases, this protein preferentially dephosphorylates phosphoinositide substrates. It negatively regulates intracellular levels of phosphatidylinositol-3,4,5-trisphosphate in cells and functions as a tumor suppressor by negatively regulating AKT/PKB signaling pathway. [provided by RefSeq]
Other Designations	MMAC1 phosphatase and tensin homolog deleted on chromosome 10[OTTHUMP00000020032] mutated in multiple advanced cancers 1

Pathway

- [Endometrial cancer](#)
- [Focal adhesion](#)
- [Glioma](#)
- [Inositol phosphate metabolism](#)
- [Melanoma](#)
- [p53 signaling pathway](#)
- [Pathways in cancer](#)
- [Phosphatidylinositol signaling system](#)
- [Prostate cancer](#)
- [Small cell lung cancer](#)

- [Tight junction](#)

Disease

- [Abnormalities](#)
- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Astrocytoma](#)
- [Autistic Disorder](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colon cancer](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Craniofacial Abnormalities](#)
- [Developmental Disabilities](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Ductus Arteriosus](#)
- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)

- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Hamartoma Syndrome](#)
- [Hyperplasia](#)
- [Infant](#)
- [Insulin Resistance](#)
- [Learning Disorders](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Mental Retardation](#)
- [Microsatellite Instability](#)
- [Narcolepsy](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)

- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Proteus Syndrome](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Skin Neoplasms](#)
- [Stomach Neoplasms](#)
- [Syndrome](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)