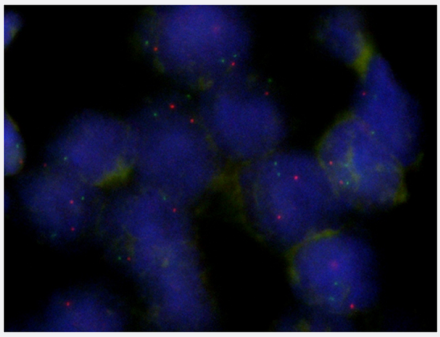
Sm Size

p16/CEN9q FISH Probe

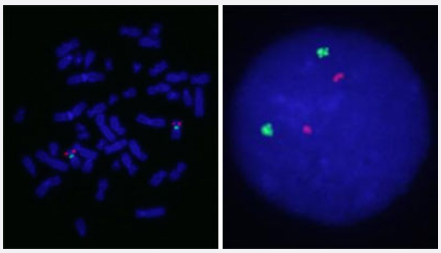
Catalog # FG0002 Size 100 uL, 200 uL

Applications



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

Human breast cancer (FFPE) stained with p16/CEN9q FISH Probe. Human breast cancer showed no p16 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 T echnique. (Technology).

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Probe 1	**Name:** p16 **Size:** Approximately 110kb **Fluorophore:** Texas Red **Location:** 9p21
Probe 2	**Name:** CEN9q **Size:** Approximately 470kb **Fluorophore:** FITC **Location:** 9q21
Probe Gap	The gap between two probes is approximately 49,380 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 breast cancer (FFPE) stained with p16/CEN9q FISH Probe. Human breast cancer showed no p16 gene amplification

  Protocol Download

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- Fluorescent In Situ Hybridization (Cell)

  Protocol Download

Gene Info — CDKN2A

Entrez GeneID	1029
Gene Name	CDKN2A
Gene Alias	ARF, CDK4I, CDKN2, CMM2, INK4, INK4a, MLM, MTS1, TP16, p14, p14ARF, p16, p16INK4, p16INK4a, p19
Gene Description	cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
Omim ID	151623 155601 155755 600160 606719
Gene Ontology	Hyperlink
Gene Summary	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, MDM1, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene. [provided by RefSeq
Other Designations	CDK4 inhibitor p16-INK4|OTTHUMP00000021147|OTTHUMP00000021148|cell cycle negative regulator beta|cyclin-dependent kinase inhibitor 2A|cyclin-dependent kinase inhibitor p16|multiple tumor suppressor 1

Pathway

- Bladder cancer
- Cell cycle
- Chronic myeloid leukemia
- Glioma
- Melanoma

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- Non-small cell lung cancer
- p53 signaling pathway
- Pancreatic cancer
- Pathways in cancer

Disease

- Adenocarcinoma
- Alzheimer disease
- Aneuploidy
- Asthma
- Ataxia telangiectasia
- Atherosclerosis
- Barrett Esophagus
- Bile Duct Neoplasms
- Birth Weight
- Brain Ischemia
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Chagas Disease
- Cholangiocarcinoma
- Cholangitis
- Chromosomal Instability

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- Chromosome Aberrations
- Chronic Disease
- Colon cancer
- Colonic Neoplasms
- Colorectal Neoplasms
- Coronary Artery Disease
- Coronary Disease
- Cystadenocarcinoma
- Diabetes
- Diabetes Complications
- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Dysplastic Nevus Syndrome
- Eczema
- Esophageal Neoplasms
- Eye Neoplasms
- Fetal Diseases
- Genetic Predisposition to Disease
- Glioblastoma
- Glioma

- Glucose Intolerance
- Glucose Metabolism Disorders
- Head and Neck Neoplasms
- Heart Diseases

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- Hemorrhage
- HIV Infections
- Hyperglycemia
- Hyperlipidemias
- Hyperlipoproteinemia Type II
- Hypersensitivity
- Hypertension
- Insulin Resistance
- Intracranial Aneurysm
- Kidney Failure
- Laryngeal Neoplasms
- Leukemia
- Leukoplakia
- Liver Cirrhosis
- Lung Neoplasms
- Lymphoma
- Malignant melanoma
- Malnutrition
- Melanoma
- Meningeal Neoplasms
- Meningioma
- Microsatellite Instability
- Mouth Neoplasms
- Multiple endocrine neoplasia
- Multiple Endocrine Neoplasia Type 1
- Multiple Myeloma

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- Myelodysplastic Syndromes
- Myocardial Infarction
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasm Recurrence
- Neoplasms
- Neuroma
- Nevus
- Obesity
- Occupational Diseases
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Periodontitis
- Pharyngeal Neoplasms
- Precancerous Conditions
- Prostate cancer
- Prostatic Neoplasms
- Pulmonary Disease
- Rectal Neoplasms
- Retinoblastoma
- Rhinitis
- Schizophrenia
- Skin Neoplasms
- Starvation

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- Stomach Neoplasms
- Stroke
- Sunburn
- Urinary Bladder Neoplasms
- Uveal Neoplasms
- Vascular Diseases
- Weight Gain
- Werner syndrome
- Wolfram Syndrome

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