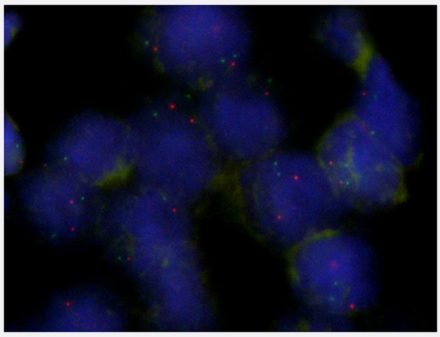
Sm Size

# p16/CEN9q FISH Probe

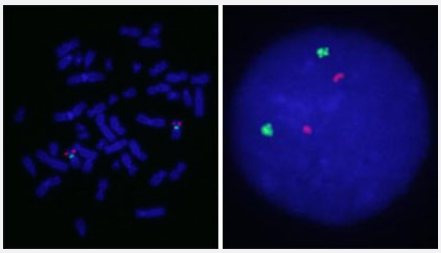
Catalog # FG0002 Size 100 uL, 200 uL

## 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<br>**Size:** Approximately 110kb<br>**Fluorophore:** Texas Red<br>**Location:** 9p21 |
| **Probe 2** | **Name:** CEN9q<br>**Size:** Approximately 470kb<br>**Fluorophore:** FITC<br>**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.<br><br>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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