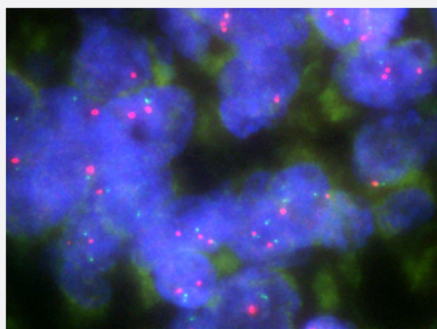


# DYRK1A/CEN21q FISH Probe

Catalog # FG0015

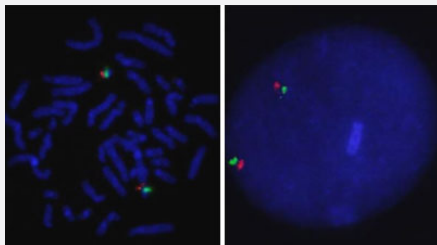
Size 200 uL, 100 uL

## Applications



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

Human hepatocellular carcinoma (FFPE) stained with DYRK1A/CEN21q FISH Probe. Human hepatocellular carcinoma showed no DYRK1A 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](#)).

<b>Probe 1</b>	<b>Name:</b> DYRK1A <b>Size:</b> Approximately 570kb <b>Fluorophore:</b> Texas Red <b>Location:</b> 21q22.13
<b>Probe 2</b>	<b>Name:</b> CEN21q <b>Size:</b> Approximately 520kb <b>Fluorophore:</b> FITC <b>Location:</b> 21q11.2
<b>Probe Gap</b>	The gap between two probes is approximately 14,000 kb.
<b>Origin</b>	Human
<b>Source</b>	Genomic DNA
<b>Reactivity</b>	Human
<b>Form</b>	Liquid
<b>Notice</b>	We <b>strongly recommend</b> the customer to use FFPE FISH PreTreatment Kit 1 (Catalog #: <a href="#">KA2375</a> or <a href="#">KA2691</a> ) for the pretreatment of Formalin-Fixed Paraffin-Embedded (FFPE) tissue sections.
<b>Regulation Status</b>	For research use only (RUO)
<b>Quality Control Testing</b>	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.
<b>Supplied Product</b>	DAPI Counterstain (1500 ng/mL ) 125 uL for each 100 uL FISH Probe
<b>Storage Instruction</b>	Store at 4°C in the dark.
<b>Note</b>	<p>Hybridization position of the probes on the chromosome.</p> <p>Hybridization position of the probes on the chromosome.</p>

## Applications

- Fluorescent In Situ Hybridization (Cell)

[Protocol Download](#)

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

Human hepatocellular carcinoma (FFPE) stained with DYRK1A/CEN21q FISH Probe. Human hepatocellular carcinoma showed no DYRK1A gene amplification.

[Protocol Download](#)

## Gene Info — DYRK1A

**Entrez GeneID** [1859](#)

**Gene Name** DYRK1A

**Gene Alias** DYRK, DYRK1, HP86, MNB, MNBH

**Gene Description** dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A

**Omim ID** [600855](#)

**Gene Ontology** [Hyperlink](#)

**Gene Summary** This gene encodes a member of the Dual-specificity tyrosine phosphorylation-regulated kinase (DYRK) family. This member contains a nuclear targeting signal sequence, a protein kinase domain, a leucine zipper motif, and a highly conservative 13-consecutive-histidine repeat. It catalyzes its autophosphorylation on serine/threonine and tyrosine residues. It may play a significant role in a signaling pathway regulating cell proliferation and may be involved in brain development. This gene is a homolog of Drosophila mnb (minibrain) gene and rat Dyrk gene. It is localized in the Down syndrome critical region of chromosome 21, and is considered to be a strong candidate gene for learning defects associated with Down syndrome. Alternative splicing of this gene generates several transcript variants differing from each other either in the 5' UTR or in the 3' coding region. These variants encode at least five different isoforms. [provided by RefSeq]

**Other Designations** MNB/DYRK protein kinase|OTTHUMP00000109090|dual specificity YAK1-related kinase|minibrain homolog|mnb protein kinase homolog hp86|protein kinase minibrain homolog|serine/threonine kinase MNB|serine/threonine-specific protein kinase

## Disease

- [Alzheimer Disease](#)
- [Genetic Predisposition to Disease](#)