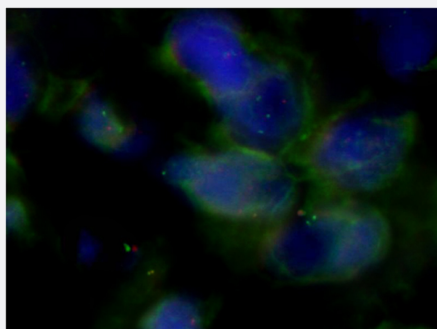


# TOP2A/CEN17q FISH Probe

Catalog # FG0007

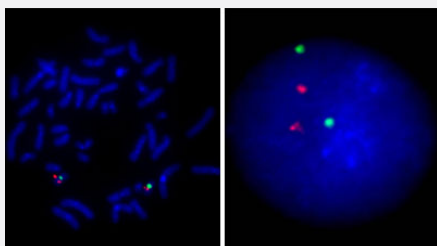
Size 200 uL, 100 uL

## Applications



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

Human breast cancer (FFPE) stained with TOP2A/CEN17q FISH Probe. Human breast cancer showed no TOP2A 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	<b>Name:</b> TOP2A <b>Size:</b> Approximately 180kb <b>Fluorophore:</b> Texas Red <b>Location:</b> 17q21
Probe 2	<b>Name:</b> CEN17q <b>Size:</b> Approximately 540kb <b>Fluorophore:</b> FITC <b>Location:</b> 17q11.2
Probe Gap	The gap between two probes is approximately 6,400 kb.
Origin	Human
Source	Genomic DNA
Reactivity	Human
Form	Liquid
Notice	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.
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 breast cancer (FFPE) stained with TOP2A/CEN17q FISH Probe. Human breast cancer showed no TOP2A gene amplification.

[Protocol Download](#)

## Gene Info — TOP2A

Entrez GeneID [7153](#)

Gene Name TOP2A

Gene Alias TOP2, TP2A

Gene Description topoisomerase (DNA) II alpha 170kDa

Omim ID [126430](#)

Gene Ontology [Hyperlink](#)

**Gene Summary**

This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic state of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromosome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia. [provided by RefSeq]

**Other Designations** DNA topoisomerase II, 170 kD|DNA topoisomerase II, alpha isozyme|topoisomerase (DNA) II alpha (170kD)

## Disease

- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Leukemia](#)
- [Lymphatic Metastasis](#)
- [Lymphoma](#)
- [Recurrence](#)
- [Stomach Neoplasms](#)