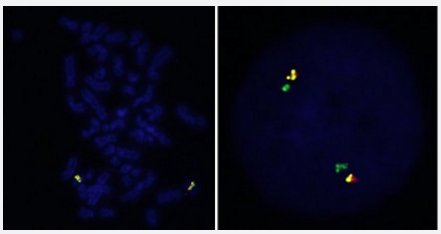
ERBB2/TOP2A/CEN17q FISH Probe

Catalog # FG0209 Size 200 uL

Applications



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).
Probe 1	**Name:** TOP2A **Size:** Approximately 180kb **Fluorophore:** R6G **Location:** 17q21
Probe 2	**Name:** ERBB2(HER2) **Size:** Approximately 220kb **Fluorophore:** TexRed **Location:** 17q12

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Probe 3	**Name:** CEN17q **Size:** Approximately 540kb **Fluorophore:** FITC **Location:** 17q11.2
Origin	Human
Source	Genomic DNA
Reactivity	Human
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 triple 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) 250 uL
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 (Cell)

  Protocol Download

Gene Info — ERBB2

Entrez GeneID	2064
Gene Name	ERBB2
Gene Alias	CD340, HER-2, HER-2/neu, HER2, NEU, NGL, TKR1
Gene Description	v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogen e homolog (avian)
Omim ID	137215 137800 164870 211980

Copyright © 2023 Abnova Corporation. All Rights Reserved.

Gene Ontology	Hyperlink
Gene Summary	This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. [provided by RefSeq
Other Designations	c-erb B2/neu protein|erbB-2|herstatin|neuroblastoma/glioblastoma derived oncogene homolog|v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog)

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 states 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 chromsome 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)

Pathway

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Adherens junction
- Bladder cancer
- Calcium signaling pathway
- Endometrial cancer
- ErbB signaling pathway
- Focal adhesion
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer
- Prostate cancer

Disease

- Adenocarcinoma
- Ataxia telangiectasia
- Brain Neoplasms
- Breast cancer
- Breast cancer
- Breast Neoplasms
- Breast Neoplasms
- Carcinoma
- Cell Transformation
- Cleft Lip
- Cleft Palate
- Colorectal Neoplasms
- Disease Progression

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Endometrial Neoplasms
- Esophageal Neoplasms
- Fibroadenoma
- Gastritis
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Glioma
- Head and Neck Neoplasms
- Heart Diseases
- Kidney Failure
- Laryngeal Neoplasms
- Leukemia
- Lung Neoplasms
- Lymphatic Metastasis
- Lymphatic Metastasis
- Lymphoma
- Mouth Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Obesity
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms

Copyright © 2023 Abnova Corporation. All Rights Reserved.

- Papillomavirus Infections
- Pharyngeal Neoplasms
- Prostate cancer
- Prostatic Hyperplasia
- Prostatic Neoplasms
- Pulmonary Disease
- Recurrence
- Skin Neoplasms
- Stomach Neoplasms
- Stomach Neoplasms
- Thyroid Neoplasms
- Tooth Abnormalities
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Werner syndrome

Copyright © 2023 Abnova Corporation. All Rights Reserved.