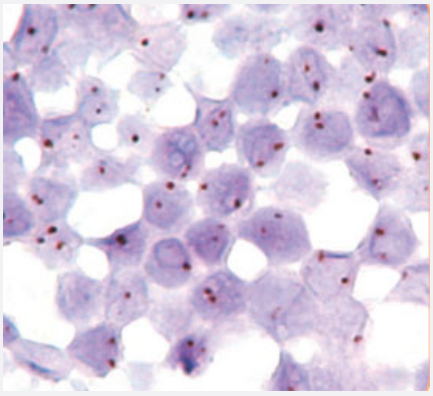
EGFR CISH Probe

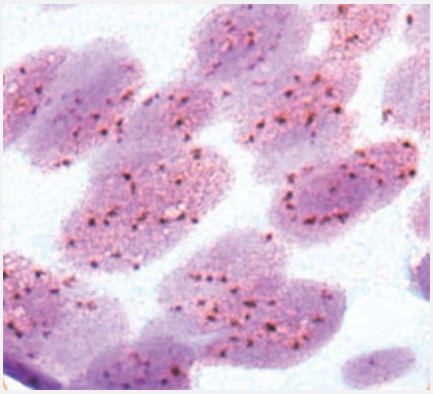
Catalog # CG0017 Size 400 uL

Applications



Chromogenic *In Situ* Hybridization (FFPE Tissue)

Normal nuclei each with two EGFR signals.



Chromogenic *In Situ* Hybridization (Cells)

NSCLC cancer cells with multiple EGFR signals in sputum sample.

Specification

Product Description	EGFR CISH Probe is designed for the qualitative detection of human EGFR gene in formalin-fixed, paraffin-embedded specimens by chromogenic *in situ* hybridization (CISH).
Reactivity	Human
Recommend Usage	The product is ready-to-use. No reconstitution, mixing, or dilution is required. Bring probe to room temperature (18-25°C) and mix briefly before use.

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Supplied Products	Reagent Provided: This Probe is available in one size and is composed of: Digoxigenin-labeled polynucleotides targeting sequences mapping in 7p11.2-7p12* (chr7:55,034,991-55,380,617) harboring the EGFR gene Formamide based hybridization buffer *according to Human Genome Assembly GRCh37/hg19
Probe Position	
Regulatory Status	For research use only (RUO)
Storage Instruction	Store at 2-8°C in an upright position. Return to storage conditions immediately after use.
Note	The probe is intended to be used in combination with the CISH Implementation Kit 1 (Catalog #: KA5365), which provides necessary reagents for specimen pretreatment and post-hybridization processing. Hybridization signals of digoxigenin-labeled polynucleotides appear as brown- to dark brown colored distinct dots. Normal situation: In interphases of normal cells or cells without an amplification involving the 7p11.2 band, two distinct dot-shaped brown signals per nuclei appear. Aberrant situation: In a cell with amplification of the EGFR gene locus or aneuploidy of chromosome 7, multiple copies of the brown signal or brown signal clusters will be observed. Other signal distribution may be observed in some abnormal samples which might result in a different signal pattern than described above, indicating variant rearrangements. Unexpected signal patterns should be further investigated. The digoxigenin-labeled probe and the formamide-based hybridization buffer are pre-mixed and provided in a single ready-to-use vial. Only one tube is included in the package.
Interpretation of Result	
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening

Applications

- Chromogenic *In Situ* Hybridization (FFPE Tissue)

  Normal nuclei each with two EGFR signals.

- Chromogenic *In Situ* Hybridization (Cells)

  NSCLC cancer cells with multiple EGFR signals in sputum sample.

Gene Info — EGFR

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Entrez GeneID	1956
Gene Name	EGFR
Gene Alias	ERBB, ERBB1, HER1, PIG61, mENA
Gene Description	epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-b) oncogene homolog, avian)
Omim ID	131550 211980
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protei n kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a lig and induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation . Mutations in this gene are associated with lung cancer. [provided by RefSeq
Other Designations	avian erythroblastic leukemia viral (v-erb-b) oncogene homolog|cell growth inhibiting protein 40|ce ll proliferation-inducing protein 61|epidermal growth factor receptor

Pathway

- Adherens junction
- Bladder cancer
- Calcium signaling pathway
- Colorectal cancer
- Cytokine-cytokine receptor interaction
- Dorso-ventral axis formation
- Endocytosis
- Endometrial cancer
- Epithelial cell signaling in Helicobacter pylori infection
- ErbB signaling pathway
- Focal adhesion
- Gap junction
- Glioma

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- GnRH signaling pathway
- MAPK signaling pathway
- Melanoma
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer
- Prostate cancer
- Regulation of actin cytoskeleton

Disease

- Adenocarcinoma
- Anus Neoplasms
- Asthma
- Astrocytoma
- Atherosclerosis
- Barrett Esophagus
- Bile Duct Neoplasms
- Biliary Tract Neoplasms
- Bipolar Disorder
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Bronchial Hyperreactivity
- Carcinoma
- Cardiomyopathy
- Cardiovascular Diseases

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- Cell Transformation
- Central Nervous System Neoplasms
- Cervical Intraepithelial Neoplasia
- Cholangiocarcinoma
- Chromosome Aberrations
- Chromosome Deletion
- Cleft Lip
- Cleft Palate
- Cocarcinogenesis
- Colon cancer
- Colonic Neoplasms
- Colorectal Neoplasms
- Cystadenocarcinoma
- Diabetes Mellitus
- Diarrhea
- Disease Progression
- Disease Susceptibility
- DNA Damage
- Drug Eruptions
- Drug Toxicity
- Edema
- Endometrial Neoplasms
- Endometriosis
- Esophageal Neoplasms
- Exanthema
- Genetic Diseases

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- Genetic Predisposition to Disease
- Glioblastoma
- Glioma
- Head and Neck Neoplasms
- Hepatitis C
- HIV Infections
- Hyperparathyroidism
- Hypersensitivity
- Hypopharyngeal Neoplasms
- Kidney Failure
- Kidney Neoplasms
- Liver Diseases
- Liver Neoplasms
- Lung carcinoma
- Lung Neoplasms
- Lupus Erythematosus
- Lymphatic Metastasis
- Mental Disorders
- Mouth Neoplasms
- Myoma
- Nasopharyngeal Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Osteosarcoma

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- Otorhinolaryngologic Neoplasms
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Papillomavirus Infections
- Polycystic Kidney
- Polycystic kidney disease
- Precancerous Conditions
- Prostate cancer
- Prostatic Hyperplasia
- Prostatic Neoplasms
- Pulmonary Disease
- Ras oncogene
- Rectal Neoplasms
- Recurrence
- Skin Neoplasms
- Small Cell Lung Carcinoma
- Stomach Neoplasms
- Thyroid Neoplasms
- Tongue Neoplasms
- Tonsillar Neoplasms
- Urinary Bladder Neoplasms
- Urinary Calculi
- Uterine Cervical Neoplasms
- Uterine Neoplasms

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- Viremia
- Werner syndrome

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