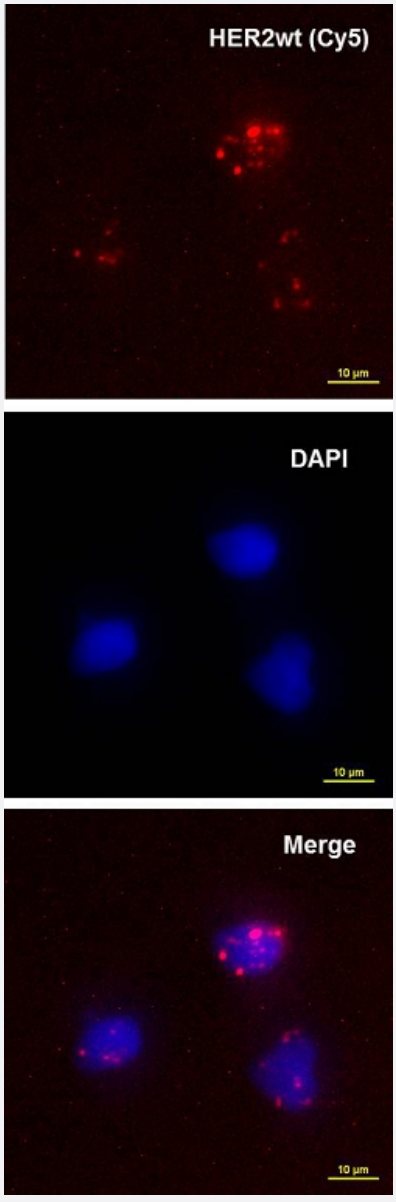
mutaFISH™ HER2wt DNA Probes

Catalog # FP0010 Size 1 Probe Set

Applications



mutation specific, Fluorescence *In Situ* Hybridization (Cells)

mutaFISH™ staining was performed *in situ* in HER2-amplified breast cancer lines BT-474. HER2 was detected via red signal (Cy5).

Specification

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Product Description	mutaFISH™ HER2wt DNA Probes is designed to identify human HER2 gene amplification on dsDNA in cells using padlock probe and *in situ* rolling-circle amplification technology.
Reactivity	Human
Supplied Products	Content: 1. mutaFISH™ HER2wt DNA Probe 1 2. mutaFISH™ HER2wt DNA Probe 2 3. Detection Probe-Texas Red X
Technology	mutaFISH™ (mutation-specific Fluorescence *In Situ* Hybridization)
Comparison	FISH Probes vs mutaFISH™ Probes
Fluorophore	Texas Red X (Excitation Peak (nm): 595; Emission Peak 613)
Probe Position	
Regulatory Status	For research use only (RUO)
Storage Instruction	Store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	We recommend mutaFISH™ DNA Accessory Kit 1 for Cells (Catalog #: KA4916) which provides necessary reagents and enzymes for *in situ* restriction digestion, exonucleolysis, mutaFISH™ hybridization, ligation and amplification prior to mutaFISH™.
Self-Attestation	Abnova self-attests to comply with the U.S. Framework for Nucleic Acid Synthesis Screening
Video	

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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 oncogene homolog (avian)
Omim ID	137215 137800 164870 211980
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)

Pathway

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

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- Pathways in cancer
- Prostate cancer

Disease

- Adenocarcinoma
- Ataxia telangiectasia
- Brain Neoplasms
- Breast cancer
- Breast Neoplasms
- Carcinoma
- Cell Transformation
- Cleft Lip
- Cleft Palate
- Colorectal Neoplasms
- Disease Progression
- Endometrial Neoplasms
- Esophageal Neoplasms
- Fibroadenoma
- Gastritis
- Genetic Predisposition to Disease
- Glioma
- Head and Neck Neoplasms
- Heart Diseases
- Kidney Failure
- Laryngeal Neoplasms
- Lung Neoplasms

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- Lymphatic Metastasis
- Mouth Neoplasms
- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neoplasm Recurrence
- Neoplasms
- Obesity
- Ovarian cancer
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Papillomavirus Infections
- Pharyngeal Neoplasms
- Prostate cancer
- Prostatic Hyperplasia
- Prostatic Neoplasms
- Pulmonary Disease
- Skin Neoplasms
- Stomach Neoplasms
- Thyroid Neoplasms
- Tooth Abnormalities
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Werner syndrome

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