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Humanized Recombinant Anti-Human HER2 Fab fragment Antibody
Recombinant Anti-HER2 Fab Antibody
Catalog # ASR5052

Specification

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Product Information

Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Human**
Clonality	**Recombinant Monoclonal**
Application	**WB, E, I, LCI**
Application Note	**Humanized Recombinant Anti-HER2 Fab fragment Antibody has been tested for use in Flow Cytometry, Western Blot, and ELISA. This antibody recognizes structured HER2 and will work in western blot when the protein has not been denatured with DTT or bMe. Although not tested, this antibody could be useful in in IHC and in in-vivo and other cellular assays. Specific conditions for reactivity should be optimized by the end user.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Stabilizer	**30% Glycerol**
Preservative	**0.01% (w/v) Sodium Azide**

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Additional Information

Gene ID 2064

Other Names
2064

Purity
Humanized Recombinant HER2 Fab fragment was expressed in E. coli cells. The purity was estimated to be >90% by SDS-PAGE analysis.

Storage Condition
Store vial at 2-8° C. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Protein Information

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Name ERBB2

Synonyms HER2, MLN19, NEU, NGL

Function
Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MEMO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization.

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell projection, ruffle membrane; Single-pass type I membrane protein. Note=Internalized from the cell membrane in response to EGF stimulation. [Isoform 2]: Cytoplasm. Nucleus.

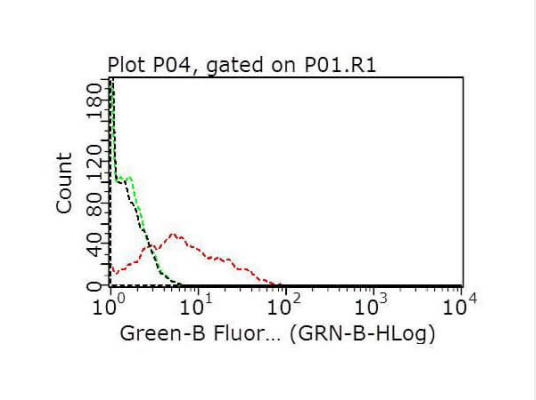
Tissue Location
Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Images



Flow Cytometry of Humanized Recombinant Anti-human HER2 Fab fragment Antibody. Primary Antibody: Recombinant Anti-HER2 Fab fragment (red line) recognizes HER2 on SK-OV-3 cells while using Anti-human kappa FITC secondary antibody at 0.2 µL with a 56.8% positive cells. Controls

used: (black line) no primary antibody, no secondary antibody, 0.6%; (green line) no primary antibody, Anti-human kappa FITC secondary antibody at 0.2 µL, 1.0%.

Humanized Recombinant Anti-Human HER2 Fab fragment Antibody - Background

HER2 (human epidermal growth factor receptor 2) is a member of the epidermal growth factor receptor (HER/EGFR/ERBB) family. It is also called ERBB2, CD340 or proto-oncogene Neu. The protein is a receptor tyrosine kinase located on the plasma membrane of cells. Activation of the tyrosine kinase promotes cell proliferation and suppresses apoptosis. HER2 can dimerize with any other member of the ErbB family, which results in auto phosphorylation of tyrosine residues and activation of signal pathways. HER2 is over expressed in a significant proportion of cancer patients, resulting in an increased disease recurrence and poor prognosis. Therefore an early diagnosis of the HER2 status of the tumors is necessary to decide the appropriate treatment. Besides in breast cancer HER2 is over expressed in variety of different tumors. The over expression of HER2 makes it a target for immunotherapy of certain tumor patients. The antibody Trastuzumab (Herceptin) which recognizes HER2 was approved for the treatment of HER2 positive breast cancer patients in 1998. The original approval was for treatment of HER2 positive metastatic breast tumors. Later studies have shown that Herceptin is also beneficial for early stage HER2 positive tumor patients and it is approved as an adjuvant treatment. Additionally the antibody is now approved also for other HER2 positive tumors (metastatic gastric adenocarcinoma). This antibody is made from a humanized Fab fragment making it specific, efficient, and effective. Humanized Recombinant Anti-HER2 Fab fragment Antibody is useful for researchers interested in Cancer research.