

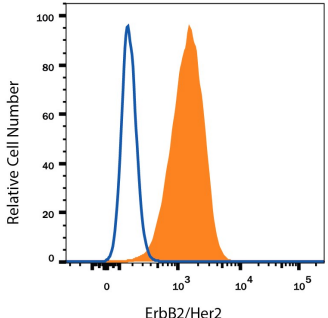
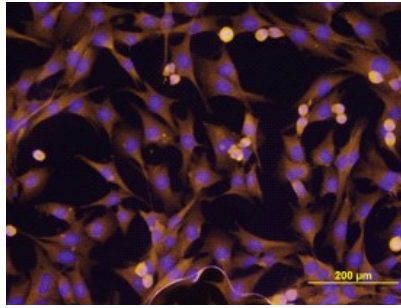
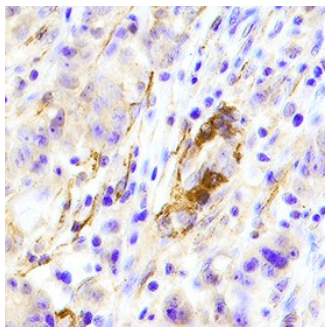
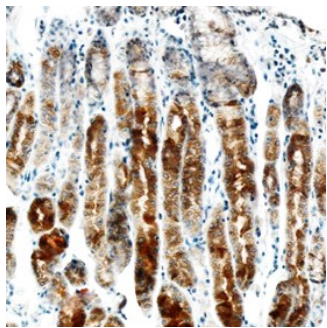
| DESCRIPTION | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human ErbB2/Her2 in ELISAs and Western blots. In ELISAs and Western blots, this antibody does not cross-react with recombinant human (rh) EGF R, rhErbB3, or rhErbB4. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 191924 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human ErbB2/Her2 Thr23-Thr652 Accession # P04626 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|--|-------------------------------|--|
| Western Blot | 1 µg/mL | Recombinant Human ErbB2/Her2 Fc Chimera (Catalog # 1129-ER) under non-reducing conditions only |
| Flow Cytometry | 0.25 µg/10 ⁶ cells | See Below |
| Immunocytochemistry | 8-25 µg/mL | See Below |
| Immunohistochemistry | 8-25 µg/mL | See Below |
| Human ErbB2/Her2 Sandwich Immunoassay | | Reagent |
| ELISA Capture | 2-8 µg/mL | Human ErbB2/Her2 Antibody (Catalog # MAB1129) |
| ELISA Detection | 0.1-0.4 µg/mL | Human ErbB2/Her2 Biotinylated Antibody (Catalog # BAF1129) |
| Standard | | Recombinant Human ErbB2/Her2 Fc Chimera (Catalog # 1129-ER) |
| CyTOF-ready | | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. |

DATA

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| <p>Flow Cytometry</p>  <p>Detection of ErbB2/Her2 in MCF-7 Human Cell Line by Flow Cytometry. MCF-7 human breast cancer cell line was stained with Mouse Anti-Human ErbB2/Her2 Monoclonal Antibody (Catalog # MAB1129, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.</p> | <p>Immunocytochemistry</p>  <p>ErbB2/Her2 in MDA-MB-231 Human Cell Line. ErbB2/Her2 was detected in immersion fixed MDA-MB-231 human breast cancer cell line using Mouse Anti-Human ErbB2/Her2 Monoclonal Antibody (Catalog # MAB1129) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p> |
| <p>Immunohistochemistry</p>  <p>ErbB2/Her2 in Human Breast Cancer Tissue. ErbB2/Her2 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Mouse Anti-Human ErbB2/Her2 Monoclonal Antibody (Catalog # MAB1129) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> | <p>Immunohistochemistry</p>  <p>ErbB2/Her2 in Human Stomach. ErbB2/Her2 was detected in immersion fixed paraffin-embedded sections of human stomach using Mouse Anti-Human ErbB2/Her2 Monoclonal Antibody (Catalog # MAB1129) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membrane/cytoplasm in glands and villi. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> |

PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

ErbB2, also called Neu and Her2 (human epidermal growth factor receptor 2), is a type I membrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factor (EGF) family of growth factors. ErbB2 is widely expressed in epithelial cells and has also been found to be over-expressed in a large number of breast carcinomas. Among ErbB family members, ErbB2 is unique in that it has no identified ligands. Rather, ErbB2 heterodimerizes with the other members of the ErbB family (ErbB1 (EGF R), ErbB3, ErbB4) to form higher affinity signaling complexes. Because ErbB3 contains a defective kinase domain, the kinase domain of ErbB2 is responsible for initiating the tyrosine phosphorylation signal through the heterodimeric receptor. It has been found that a discrete three amino acid signal in the ErbB3 cytoplasmic domain is critical for transactivation of ErbB2. Interestingly, this same three amino acid signal has also been found in ErbB1 and ErbB4. Phosphoinositide 3-kinase has been shown to play a role in ErbB2 signal transduction. The cytoplasmic domain of ErbB2 has been shown to associate with beta-catenin and plakoglobin. Human ErbB2 consists of 1255 amino acids (aa) with a 21 aa signal sequence, a 631 aa extracellular domain, a 23 aa transmembrane region, and a 580 aa cytoplasmic domain. ErbB2 can be shed from the cell surface by proteolytic cleavage by an unidentified protease. ErbB2 appears to play roles in development, cancer, communication at the neuromuscular junction, and regulation of cell growth and differentiation (1-10).

References:

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