

## DESCRIPTION

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human                                                                                                                                                                                                                                                        |
| <b>Specificity</b>                                                                                                                                                                                      | Detects human ErbB2/Her2 in direct ELISAs and Western blots. In direct ELISAs, less than 20% cross-reactivity with recombinant mouse ErbB2 is observed and less than 5% cross-reactivity with recombinant human (rh) ErbB3, rhErbB4, and rhEGF R is observed |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                                                                                                                                                          |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                                                                                                                                                    |
| <b>Immunogen</b>                                                                                                                                                                                        | Mouse myeloma cell line NS0-derived recombinant human ErbB2/Her2<br>Thr23-Thr652<br>Accession # P04626                                                                                                                                                       |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                              |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                                                                                                                                                                 |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                                                                                                                                                              |

## 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.

|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| <b>CyTOF-ready</b>               | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>              | Optimal dilution of this antibody should be experimentally determined. |
| <b>Flow Cytometry</b>            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b>      | Optimal dilution of this antibody should be experimentally determined. |
| <b>Inhibition of Cell Growth</b> | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## 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 (EGFR), 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).

## PRODUCT SPECIFIC NOTICES

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