

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived human ErbB2/Her2 protein
Ser22-Thr652, with a C-terminal 6-His tag
Accession # P04626-1

N-terminal Sequence Analysis Ser22

Predicted Molecular Mass 70 kDa

SPECIFICATIONS

SDS-PAGE 93-108 kDa, under reducing conditions

Activity Measured by its ability to block anti-ErbB2 mediated inhibition of SK-BR-3 human breast cancer cell proliferation. Brodowicz, T. *et al.* (1997) Int. J. Cancer **73**:875.
The ED₅₀ for this effect is 0.3-1.2 µg/mL in the presence of 0.6 µg/mL Human ErbB2/Her2 Antibody (Trastuzumab, Catalog # [MAB9589](#)).

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 500 µg/mL in PBS.

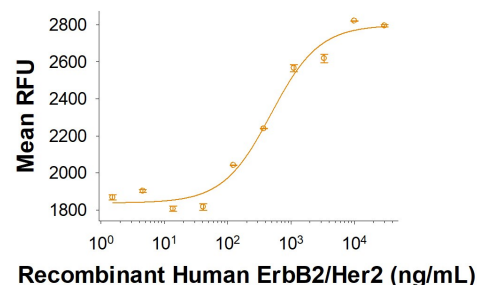
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA

Bioactivity



Recombinant Human ErbB2/Her2 His-tag (Catalog # 10126-ER) blocks anti-hErbB2 antibody (Trastuzumab, Catalog # [MAB9589](#)) mediated inhibition of the SK-BR-3 human breast cancer cell line proliferation. The ED₅₀ is 0.3-1.2 µg/mL in the presence of 0.6 µg/mL antibody (Trastuzumab, Catalog # [MAB9589](#)).

BACKGROUND

ErbB2, also called Neu and Her2 (human epidermal growth factor receptor 2), is a type I transmembrane glycoprotein member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factors. It is widely expressed in epithelial cells and has also been found to be over-expressed in a large number of breast carcinomas. Among the 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. Human ErbB2 consists of 1255 amino acids (aa) including a 22 aa signal sequence, a 630 aa extracellular domain (ECD), a 23 aa transmembrane region, and a 580 aa cytoplasmic domain. Within the ECD, human ErbB2 shares and 86% aa sequence identity with mouse and rat ErbB2. 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. 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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