

Active Recombinant Human ERBB2 protein, Fc/Avi-tagged, Biotinylated

Cat. No. ERBB2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human ERBB2 Protein (22-652aa), was expressed in HEK293 cells with C-terminal Fc tag, Avi tag and biotinylated conjugate.

Species

Human

Source

HEK293

ProteinLength

22-652 aa

Description

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

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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).

Predicted N Terminal Ser22 & Thr23

Form Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

Bio-activity Measured by its binding ability in a functional ELISA. When Human ERBB2 Antibody is immobilized at 0.5 g/mL (100 µ/well), Biotinylated Recombinant Human ERBB2 Fc Chimera Avi-tag binds with an ED50 of 10-60 ng/mL.

Molecular Mass 120-138 kDa, under reducing conditions

Endotoxin <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.

Applications Bioactivity

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.

Reconstitution Reconstitute at 500 µg/mL in PBS.

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Conjugation Biotin

GENE INFORMATION

Gene Name ERBB2 v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian) [Homo sapiens]

Official Symbol ERBB2

Synonyms ERBB2; v-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian); NGL, v erb b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); receptor tyrosine-protein kinase erbB-2; CD340; HER 2; HER2; NEU; herstatin; p185erbB2; proto-oncogene Neu; c-erb B2/neu protein; proto-oncogene c-ErbB-2; metastatic lymph node gene 19 protein; tyrosine kinase-type cell surface receptor HER2; neuroblastoma/glioblastoma derived oncogene homolog; v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 2 (neuro/glioblastoma derived oncogene homolog); NGL; TKR1; HER-2; MLN 19; HER-2/neu;

Gene ID 2064

mRNA Refseq NM_001005862

Protein Refseq NP_001005862

MIM 164870

UniProt ID P04626

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