

Recombinant Human ERBB2

Cat. No. ERBB2-2515H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ERBB2 protein, was expressed in Human HEK293 cells and purified by SDS-PAGE and Coomassie blue staining
Species	Human
Description	This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members which do have kinase activity. Heterodimerization leads to the activation of pathways which lead to cell proliferation or differentiation. Amplification of this gene and/or overexpression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. Alternate transcriptional splice variants encoding different isoforms have been characterized. One isoform lacks the intermembrane region and is secreted outside the cell. This form acts to modulate the activity of the membrane-bound form. Additional splice variants have also been reported, but they have not been thoroughly characterized.
Preparation	HEK293T cells were transiently transfected with MegaTran Transfection Reagent and TrueORF cDNA plasmid. Transfected cells were cultured for 48-72 hrs before collection. The cells were lysed in modified RIPA buffer (25mM Tris-HCl pH7.6, 150mM NaCl, 1% NP-40, 1mM EDTA, 1x Proteinase inhibitor cocktail mix, 1mM PMSF and 1mM Na3VO4), and then centrifuged to clarify the lysate. Recombinant proteins

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were purified through anti-DDK affinity columns. Protein concentration was measured by BCA kit.

Molecular Weight 137.7 kDa

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Concentration > 50ug/ml as determined by BCA

Buffer 10% glycerol, 100 mM glycine, 25 mM Tris-HCl, pH 7.3

Storage Store at -80°C. Avoid repeated freeze-thaw cycles. Stable for 3 months from receipt of products under proper storage and handling conditions

GENE INFORMATION

Gene Name ERBB2v-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); NEU; NGL; HER2; TKR1; CD340; HER-2; HER-2/neu; Receptor tyrosine-protein kinase erbB-2; p185erbB2; C-erbB-2; Tyrosine kinase-type cell surface receptor HER2; MLN 19; c-erb B2/neu prote; neuroblastoma/glioblastoma derived oncogene homolog; v-erb-b2 avian erythroblastic leukemia viral oncogene; homolog 2 (neuro/glioblastoma derived oncogene homolog); v-erb-b2 erythroblastic leukemia viral oncogene homolog 2

Gene ID 2064

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mRNA Refseq	NM_004448
Protein Refseq	NP_004439
MIM	164870
UniProt ID	P04626
Chromosome Location	17q11.2-q12
Pathway	Adherens junction; Bladder cancer; Calcium signaling pathway; Endometrial cancer; ErbB signaling pathway; Focaladhesion; Non-small cell lung cancer; Pancreatic cancer; Pathways in cancer; Prostate cancer; Axon guidance
Function	ATP binding; ErbB-3 class receptorbinding; Hsp90 protein binding; epidermal growth factor receptor activity; glycoprotein binding; growth factor binding; identical protein binding; nucleotide binding; protein C-terminus binding; protein heterodimerizationactivity; protein phosphatase binding; protein phosphatase binding; receptorsignaling protein tyrosine kinase activity; transferase activity; transmembrane receptor activity; ubiquitin protein ligase bindin
PDBrendering based on 1m6b.	