ERBB2 Rat Recombinant Protein

PRODUCT OVERVIEW

Product Name	ERBB2, Recombinant Protein
Full Product Name	Recombinant Rat ERBB2 Protein
Product Gene Name	ERBB2 recombinant protein
Product Synonym Names	HER2; MLN19; NEU; NGL; Receptor tyrosine-protein kinase erbB-2; Metastatic lymph node gene 19 protein; MLN 19; Proto-oncogene Neu; Proto-oncogene c-ErbB-2; Tyrosine kinase-type cell surface receptor HER2; p185erbB2; CD340
Sequence	MANASLSFLQ DIQEVQGYML IAHNQVKRVP LQRLRIVRGT QLFEDKYALA VLDNRDPQDN VAASTPGRTP EGLRELQLRS LTEILKGGVL IRGNPQLCYQ DMVLWKDVFR KNNQLAPVDI DTNRSRACPP CAPACKDNHC WGESPEDCQI LTGTICTSGC ARCKGRLPTD CCHEQCAAGC TGPKHSDCLA CLHFNHSGIC ELHCPALVTY NTDTFESMHN PEGRYTFGAS CVTTCPYNYL STEVGSCTLV CPPNNQEVHH HHHH
Host	E Coli
Species Reactivity	Rat
Form/Format	Lyophilized from a 0.2 muM filtered solution of 20mM Tris, 150mM NaCl, 4M Urea, pH 8.0.
Purity/Purification	Greater than 95% as determined by reducing SDS-PAGE.
Preparation and Storage	Lyophilized protein should be stored at -20 degree C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 2-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at -20 degree C for 3 months.
Molecular Weight	138,832 Da
3D Structure	ModBase 3D Structure for P06494
Endotoxin	Less than 0.1 ng/mug (1 IEU/mug) as determined by LAL test.
Directions for Use	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 mug/ml. Dissolve the lyophilized protein in 1X PBS. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Applications Tested/Suitable for ERBB2 recombinant protein	ELISA (EIA),Western Blot (WB), SDS-PAGE, Mass Spectrometry (MS)
Related Product Information for ERBB2 recombinant protein	Recombinant Rat ERBB2 Protein is produced by our E Coli expression system and the target gene encoding Ala67-Val323 is expressed with a 6His tag at the C-terminus.
Other Notes	Small volumes of ERBB2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ERBB2 purchase	MBS8248987 is a recombinant protein targeting ERBB2. Also known as Recombinant Rat ERBB2 Protein. Reactive in Rat. Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ERBB2. It may not necessarily be applicable to this product.

NCBI GI #	3915663
NCBI GeneID	24337
UniProt Primary Accession #	P06494

UniProt Secondary Accession #	Q6P732
UniProt Related Accession #	P06494
NCBI Official Full Name	Receptor tyrosine-protein kinase erbB-2
NCBI Official Synonym Full Names	erb-b2 receptor tyrosine kinase 2
NCBI Official Symbol	Erbb2
UniProt Protein Name	Receptor tyrosine-protein kinase erbB-2
UniProt Synonym Protein Names	Epidermal growth factor receptor-related protein; Proto-oncogene Neu; Proto-oncogene c-ErbB-2; p185erbB2; p185neu; CD_antigen: CD340
Protein Family	Receptor tyrosine-protein kinase
UniProt Gene Name	Erbb2
UniProt Synonym Gene Names	Neu
UniProt Entry Name	ERBB2_RAT
NCBI Protein Information	receptor tyrosine-protein kinase erbB-2
NCBI Summary for ERBB2	may play a role in cell proliferation and differentiation [RGD, Feb 2006]
UniProt Comments for ERBB2	HER2: a proto-oncogenic receptor tyrosine kinase of the EGFR family. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. Not activated by EGF, TGF- alpha and amphiregulin. Amplified in breast cancer. Overexpression induces constitutive activity, and the gene is amplified or overexpressed in up to 30% of breast cancers, correlating with poor survival. The antibody Herceptin is approved for treatment of metastatic breast cancer with HER2 amplification/overexpression. Somatic mutations seen in 4% of lung cancers and also in breast, gastric, ovarian cancer and glioblastoma. One SNP shows predisposition to breast and gastric cancer. Inhibitors: Herceptin, lapatinib, PKI-166, EKB-569, CI-1033. Protein type: EC 2.7.10.1; EGFR family; Kinase, protein; Membrane protein, integral; Oncoprotein; Protein kinase, TK; Protein kinase, tyrosine (receptor); TK group Cellular Component: apical plasma membrane; basal plasma membrane; basolateral plasma membrane; cytoplasm; cytoplasmic vesicle; endosome membrane; lateral loop; lipid raft; microvillus; myelin sheath; nucleus; perinuclear region of cytoplasm; plasma membrane; postsynaptic membrane; receptor complex Molecular Function: glycoprotein binding; growth factor binding; Hsp90 protein binding; identical protein binding; protein binding; protein C-terminus binding; protein heterodimerization activity; protein phosphatase binding; protein-tyrosine kinase activity; transmembrane receptor activity; transmembrane receptor protein tyrosine kinase activity; ubiquitin protein ligase binding Biological Process: cell surface receptor linked signal transduction; central nervous system development; glial cell differentiation; heart development; liver development; mammary gland involution; motor axon guidance; myelination; negative regulation of apoptosis; negative regulation of immature T cell proliferation in the thymus; nervous system development; neuromuscular junction development; oligodendrocyte differentiation; peripheral nervous system development; phosphoinositide 3-kinase cascade; positive regulation of cell adhesion; positive regulation of cell growth; positive regulation of cell proliferation; positive regulation of epithelial cell proliferation; positive regulation of GTPase activity; positive regulation of MAP kinase activity; positive regulation of MAPKKK cascade; positive regulation of phosphoinositide 3-kinase cascade; positive regulation of protein amino acid phosphorylation; positive regulation of Ras protein signal transduction; positive regulation of transcription from RNA polymerase I promoter; positive regulation of transcription from RNA polymerase III promoter; positive regulation of translation; protein amino acid autophosphorylation; regulation of cell differentiation; regulation of cell proliferation; regulation of microtubule-based process; response to axon injury; response to drug; response to progesterone stimulus; signal transduction; skeletal muscle development; sympathetic nervous system development; tongue development; transmembrane receptor protein tyrosine kinase signaling pathway; wound healing
Research Articles on ERBB2	**1.** NRG-1, ErbB2, and ErbB4 expression significantly decreased in vein grafts over time.

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