

## Receptor tyrosine-protein kinase erbB-2 (ERBB2) Active Protein | ERBB2 active protein

Recombinant Human Receptor tyrosine-protein kinase erbB-2 (ERBB2), partial (Active)

CATALOG #  
**AAA113681**

HOST  
**Mammalian Cell**

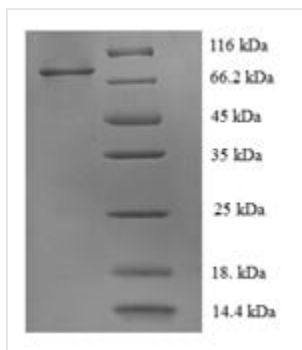
### PRODUCT SYNONYMS

Receptor tyrosine-protein kinase erbB-2 (ERBB2); Recombinant Human Receptor tyrosine-protein kinase erbB-2 (ERBB2); partial (Active); Metastatic lymph node gene 19 protein; MLN 19; Proto-oncogene Neu; Proto-oncogene c-ErbB-2; Tyrosine kinase-type cell surface receptor HER2; p185erbB2; CD\_antigen: CD340; ERBB2 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | Mammalian Cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Purity/Purification     | Greater or equal to 85% purity as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Form/Format             | Lyophilized or liquid (Format to be determined during the manufacturing process)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sequence Positions      | 23-652aa; Extracellular Domain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sequence                | TQVCTGTDMM LRLPASPETH LDMLRHLYQG CQVVQGNLEL TYLPTNASLS FLQDIQEVQG YVLIHNPQVR QVPLQRLRIV RGTQLFEDNY ALAVLDNGDP LNNTTPVTGA SPGGLRELQL RSLTEILKGG VLIQRNPQLC YQDTILWKDI FHKNNQLALT LIDTNRSRAC HPCSPMCKGS RCWGESSEDC QSLTRTVGAG GCARCKGPLP TDCCHEQCAA GCTGPKHSDC LACLHFNHSG ICELHCPALV TYNTDTFESM PNPEGRYTFG ASCVTACPYN YLSTDVGSC T LVCPLHNQEV TAEDGTQRC E KCSKPCARVC YGLGMEHLRE VRAVTSANIQ EFAGCKKIFG SLAFLPESFD GDPASNTAPL QPEQLQVFET LEEITGYLYI SAWPDSLPL SVFQNLQVIR GRILHNGAYS LTLQGLGISW LGLRSLRELG SGLALIHNT HLCFVHTVPW DQLFRNPHQA LLHTANRPED ECVGEGLACH QLCARGHCWG PGPTQCVNCS QFLRGQECVE ECRVLQGLPR EYVNARHCLP CHPECQPQNG SVTCFGPEAD QCVACAHYKD PPFCVARCPS GVKPDLSEMP IWKFPEDEGA CQPCPINCTH SCVDLDDKGC PAEQRASPLT |
| Sequence Length         | 652                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Activity                | Measured by its binding ability in a functional ELISA. Immobilized HER2 at 2 ug/ml can bind Trastuzumab, the EC50 is 2.179-2.825 ng/ml.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Preparation and Storage | Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for ERBB2 active protein | Protein tyrosine kinase that is part of several cell surface receptor complexes, but that apparently needs a coreceptor for ligand binding. Essential component of a neuregulin-receptor complex, although neuregulins do not interact with it alone. GP30 is a potential ligand for this receptor. Regulates outgrowth and stabilization of peripheral microtubules (MTs). Upon ERBB2 activation, the MO1-RHOA-DIAPH1 signaling pathway elicits the phosphorylation and thus the inhibition of GSK3B at cell membrane. This prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell membrane, which is required for microtubule capture and stabilization. In the nucleus is involved in transcriptional regulation. Associates with the 5'-TCAAATTC-3' sequence in the PTGS2/COX-2 promoter and activates its transcription. Implicated in transcriptional activation of CDKN1A; the function involves STAT3 and SRC. Involved in the transcription of rRNA genes by RNA Pol I and enhances protein synthesis and cell growth. |
| Product Categories/Family for ERBB2 active protein   | Transcription                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| References                                           | Similarity of protein encoded by the human c-erb-B-2 gene to epidermal growth factor receptor.Yamamoto T., Ikawa S., Akiyama T., Semba K., Nomura N., Miyajima N., Saito T., Toyoshima K.Nature 319:230-234(1986) Tyrosine kinase receptor with extensive homology to EGF receptor shares chromosomal location with neu oncogene.Coussens L., Yang-Feng T.L., Liao Y.C., Chen E., Gray A., McGrath J., Seeburg P.H., Libermann T.A., Schlessinger J., Francke U., Levinson A., Ullrich A.Science 230:1132-1139(1985) NIEHS SNPs programNEDO human cDNA sequencing project focused on splicing variants.Wakamatsu A., Yamamoto J., Kimura K., Ishii S., Watanabe K., Sugiyama A., Murakawa K., Kaida T., Tsuchiya K., Fukuzumi Y., Kumagai A., Oishi Y., Yamamoto S., Ono Y., Komori Y., Yamazaki M., Kisu Y., Nishikawa T., Sugano S., Nomura N., Isogai T.                                                                                                                                                                                                                                                                                        |

NCBI AND UNIPROT INFORMATION

|                                  |                                                        |
|----------------------------------|--------------------------------------------------------|
| NCBI GI #                        | 54792098                                               |
| NCBI GeneID                      | 2064                                                   |
| NCBI Accession #                 | NP_001005862.1                                         |
| NCBI GenBank Nucleotide #        | NM_001005862.2                                         |
| UniProt Accession #              | P04626; Q14256; Q6LDV1; Q9UMK4; B2RZG3; B4DHN3; X5D2V5 |
| Molecular Weight                 | 73.3 kDa                                               |
| NCBI Official Full Name          | receptor tyrosine-protein kinase erbB-2 isoform b      |
| NCBI Official Synonym Full Names | erb-b2 receptor tyrosine kinase 2                      |
| NCBI Official Symbol             | ERBB2                                                  |
| NCBI Official Synonym Symbols    | NEU; NGL; HER2; TKR1; CD340; HER-2; MLN 19; HER-2/neu  |
| NCBI Protein Information         | receptor tyrosine-protein kinase erbB-2                |
| UniProt Protein Name             | Receptor tyrosine-protein kinase erbB-2                |
| UniProt Gene Name                | ERBB2                                                  |
| UniProt Synonym Gene Names       | HER2; MLN19; NEU; NGL; MLN 19                          |
| UniProt Entry Name               | ERBB2_HUMAN                                            |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.