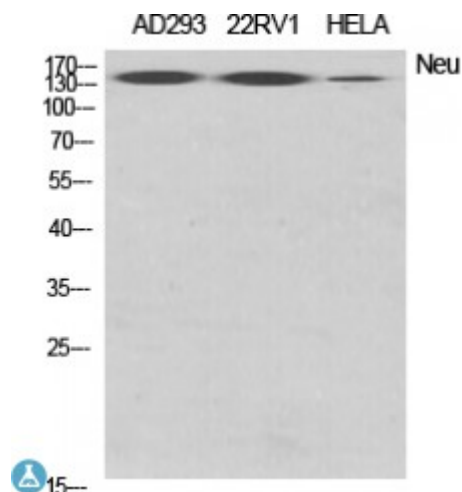


## Anti-Neu antibody



### Description

Neu is a protein encoded by the ERBB2 gene which is approximately 137,9 kDa. Neu isoform 1 is localised to the cell membrane and isoform 2 and 3 are localised to the nucleus and cytoplasm. It is involved in RET signalling, the GPCR pathway, signalling by ERBB2 and glioma. It is a protein tyrosine kinase that is part of several cell surface receptor complexes. It has no ligand binding domain of its own and therefore cannot bind growth factors. It however does bind to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways. Neu is expressed in a variety of tumor tissues including primary breast tumors. Mutations in the ERBB2 gene may result in lung cancer and ovarian cancer. STJ94412 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Neu protein.

<b>Model</b>	STJ94412
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse, Rat
<b>Applications</b>	ELISA, IF, IHC, WB
<b>Immunogen</b>	Synthesized peptide derived from human Neu
<b>Immunogen Region</b>	610-690 aa, Internal
<b>Gene ID</b>	<a href="#">2064</a>
<b>Gene Symbol</b>	<a href="#">ERBB2</a>
<b>Dilution range</b>	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000

<b>Specificity</b>	Neu Polyclonal Antibody detects endogenous levels of Neu protein.
<b>Tissue Specificity</b>	Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Note</b>	For Research Use Only (RUO).
<b>Protein Name</b>	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 CD antigen CD340
<b>Molecular Weight</b>	138 kDa
<b>Clonality</b>	Polyclonal
<b>Conjugation</b>	Unconjugated
<b>Isotype</b>	IgG
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Concentration</b>	1 mg/ml
<b>Storage Instruction</b>	Store at -20°C, and avoid repeat freeze-thaw cycles.
<b>Database Links</b>	<a href="https://www.ncbi.nlm.nih.gov/ncbiinfo/condoncode/HGNC:34300MIM:137800">HGNC:34300MIM:137800</a>
<b>Alternative Names</b>	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 CD antigen CD340
<b>Function</b>	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 MEMO1-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.
<b>Cellular Localization</b>	Isoform 1: Cell membrane. Single-pass type I membrane protein. Cytoplasm, perinuclear region. Nucleus. Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1.. Isoform 2: Cytoplasm. Nucleus.. Isoform 3: Cytoplasm. Nucleus.
<b>Post-translational Modifications</b>	Autophosphorylated. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit (Probable). Ligand-binding increases phosphorylation on tyrosine residues .

Signaling via SEMA4C promotes phosphorylation at Tyr-1248 .  
Dephosphorylated by PTPN12 .

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