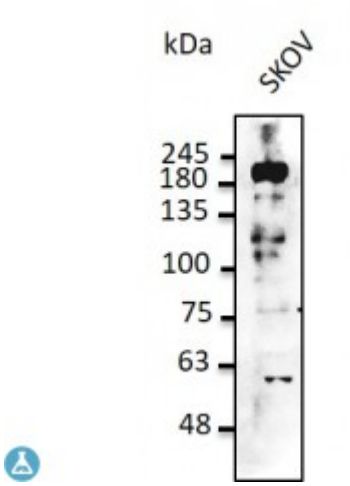
Anti-ERBB2 antibody



Description	Goat polyclonal antibody to ERBB2. This protein ia a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases containing a single transmembrane domain and has an approximate molecular weight of 185 kD. ERBB2 contains no ligand binding domain and interacts with other EGF receptor family members to form a heterodimer, stabilize ligand binding, and enhance kinase-mediated downstream signaling. It has been shown to be involved in embryonic development and cancer progression.
Model	STJ140115
Host	Goat
Reactivity	Avian, Bovine, Canine, Donkey, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Other, Porcine, Rabbit, Rat, Sheep, Simian
Applications	WB
Immunogen	Recombinant peptide derived from within residues 1,177 aa to the C-terminus of human ERBB2 produced in E. coli.
Immunogen Region	C-Term
Gene ID	2064
Gene Symbol	ERBB2
Dilution range	Western blot 1:500-1:5,000 Immunofluorescence ND Immunohistochemistry (paraffin) ND Immunohistochemistry (frozen) ND
Tissue Specificity	Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.
Purification	This antibody is epitope-affinity purified from goat antiserum.

Note	For research use only (RUO).
Protein Name	Receptor tyrosine-protein kinase erbB-2 (EC 2.7.10.1) (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)
Molecular Weight	138 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS, 20% glycerol and 0.05% sodium azide.
Concentration	2 mg/mL
Storage Instruction	Store at -20°, and avoid repeated freeze-thaw cycles.
Database Links	HGNC:3430OMIM:137800
Alternative Names	Receptor tyrosine-protein kinase erbB-2 (EC 2.7.10.1) (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)
Function	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.
Cellular Localization	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.
Post-translational Modifications	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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