

Rabbit Anti-ERBB2/HER2 antibody

SLM-60020R

Product Name ERBB2/HER2

Chinese Name ERBB2/HER2Recombinant rabbit monoclonal anti

Alias erbB-2 isoform 2; HER2 receptor; ErbB2 protein; CerbB2; c erb B2; C erbB 2; C-erbB2; CD340; Erb B2; erbb2; HER 2; Her-2; HER 2/neu; HER2; Her2/neu; Herstatin; MLN 19; MLN19; NEU; NEU Proto Oncogene; Neuro Glioblastoma Derived Oncogene Homolog; NGL; p185 ErbB2; p185erbB2; Receptor Protein Tyrosine Kinase ErbB2 Precursor; Receptor tyrosine protein kinase erbB 2; TKR1; Tyrosine kinase type cell surface receptor HER2; v erb b2 erythroblastic leukemia viral oncogene homolog 2 neuro/glioblastoma derived oncogene homolog (avian); ERBB2_HUMAN; Receptor tyrosine-protein kinase erbB-2; Metastatic lymph node gene 19 protein; Proto-oncogene Neu; Proto-oncogene c-ErbB-2.

Research Area Tumour Cell biology immunology Signal transduction Growth factors and hormones Kinases and Phosphatases Cell type markers

Immunogen Species Rabbit

Clonality Monoclonal

React Species Human

Applications IHC-P=1:100-500,IHC-F=1:400-800,IF=1:100-500(Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 185kDa

Cellular localization The nucleus cytoplasmic The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human ERBB2/HER2

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed This gene encodes a member of the epidermal growth factor (EGF) receptor family of receptor tyrosine kinases. This protein has no ligand binding domain of its own and therefore cannot bind growth factors. However, it does bind tightly to other ligand-bound EGF receptor family members to form a heterodimer, stabilizing ligand binding and enhancing kinase-mediated activation of downstream signalling pathways, such as those involving mitogen-activated protein kinase and phosphatidylinositol-3 kinase. Allelic variations at amino acid positions 654 and 655 of isoform a (positions 624 and 625 of isoform b) have been reported, with the most common allele, Ile654/Ile655, shown here. Amplification and/or overexpression of this gene has been reported in numerous cancers, including breast and ovarian tumors. Alternative splicing results in several additional transcript variants, some encoding different isoforms and others that have not been fully characterized. [provided by RefSeq, Jul 2008].
Product Detail	<p>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.</p> <p>Subunit: Heterodimer with each of ,the other ERBB receptors. The constitutively activated oncogenic variant forms a homodimer. Interacts with PRKCABP and PLXNB1. It is a type I membrane protein. Ligand-binding increases phosphorylation on tyrosine residues Belongs to the Tyr protein kinase family. EGF receptor subfamily.</p> <p>Subcellular Location: Isoform 1: Cell membrane; Single-pass type I membrane protein. Cytoplasm, perinuclear region. Nucleus. Isoform 2: Cytoplasm. Nucleus.</p>

Isoform 3: Cytoplasm. Nucleus.

Tissue Specificity:

Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

Post-translational modifications:

Autophosphorylated. Ligand-binding increases phosphorylation on tyrosine residues. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Signaling via SEMA4C promotes phosphorylation at Tyr-1248.

DISEASE:

Defects in ERBB2 are a cause of hereditary diffuse gastric cancer (HDGC) [MIM:137215]. A cancer predisposition syndrome with increased susceptibility to diffuse gastric cancer. Diffuse gastric cancer is a malignant disease

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.

Contains 1 protein kinase domain.

SWISS:

P04626

Gene ID:

2064

Database links:

[Entrez Gene: 2064](#) Human

[Entrez Gene: 13866](#) Mouse

[Entrez Gene: 24337](#) Rat

[Omim: 164870](#) Human

[SwissProt: P04626](#) Human

[SwissProt: P70424](#) Mouse

[SwissProt: P06494](#) Rat

[Unigene: 446352](#) Human

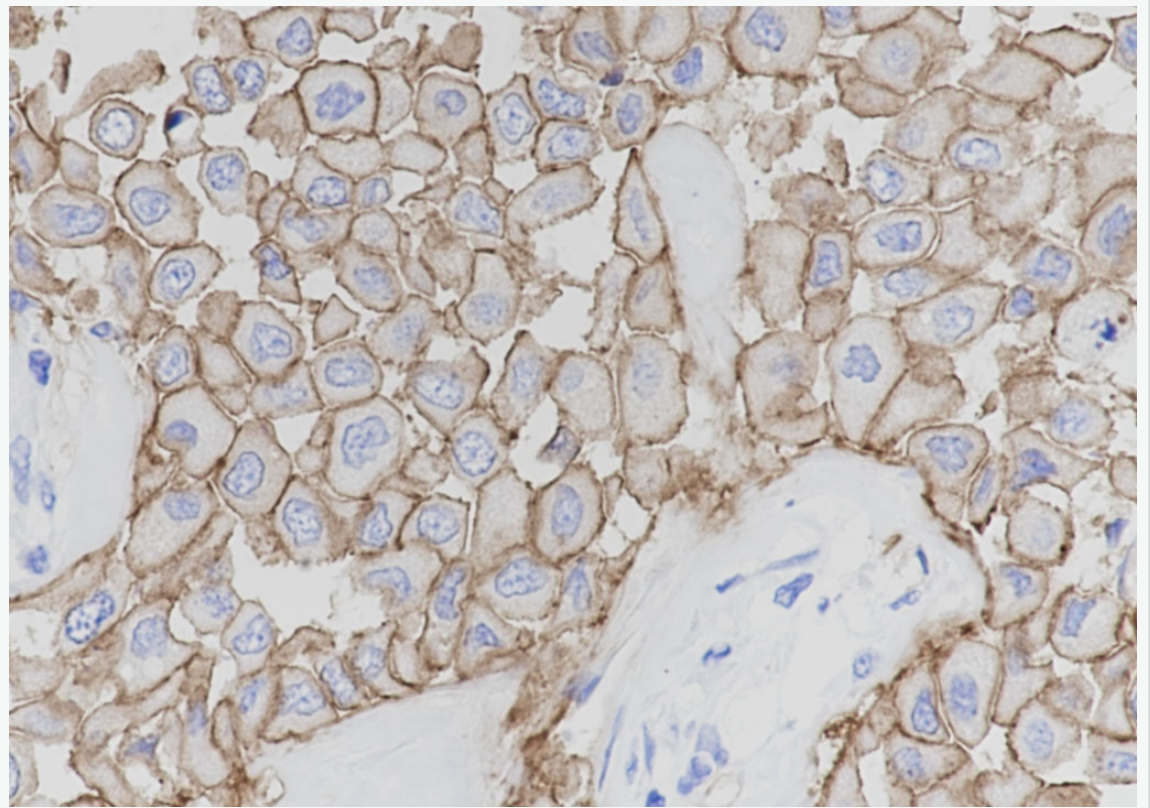
[Unigene: 290822](#) Mouse

[Unigene: 93966](#) Rat

The cell membrane 受体 (Membrane Receptors)

c-erbB-2 癌基因, 在很多癌组织中呈 C-erbB-2 过度表达。cerbB 尤其临床常用于乳腺癌术后 C-erbB-2 蛋白、雌激素受体 (ER) 和孕激素受体 (PR) 表达情况, 旨在进一步探讨癌基因蛋白, 细胞增殖活性和激素受体与乳腺癌组织学分级及术后生存期的关系, 为乳腺癌的病理诊断、预后判断及治疗提供依据。

**Product
Picture**



Tissue:Human breast cancer

Section type: Formalin fixed & Paraffin -embedded section

Retrieval method: High temperature and high pressure

Retrieval buffer: Tris/EDTA buffer, pH 9.0 Primary ab dilution: 1:1000

Primary ab incubation condition: 1 hour at room temperature



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Counter stain: Hematoxylin

Comment: Color brown is the positive signal for SLM-60020R