

ERBB2 / HER2 Antibody (clone 4E1)
Mouse Monoclonal Antibody
Catalog # ALS14271

Specification

ERBB2 / HER2 Antibody (clone 4E1) - Product Information

Application	IF, IHC
Primary Accession	P04626
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	138kDa KDa

ERBB2 / HER2 Antibody (clone 4E1) - Additional Information

Gene ID 2064

Other Names

Receptor tyrosine-protein kinase erbB-2, 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, CD340, ERBB2, HER2, MLN19, NEU, NGL

Target/Specificity

Human ERBB2

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

ERBB2 / HER2 Antibody (clone 4E1) is for research use only and not for use in diagnostic or therapeutic procedures.

ERBB2 / HER2 Antibody (clone 4E1) - Protein Information

Name ERBB2

Synonyms HER2, MLN19, NEU, NGL

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.

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, ruffle membrane; Single-pass type I membrane protein. Note=Internalized from the cell membrane in response to EGF stimulation. [Isoform 2]: Cytoplasm. Nucleus.

Tissue Location

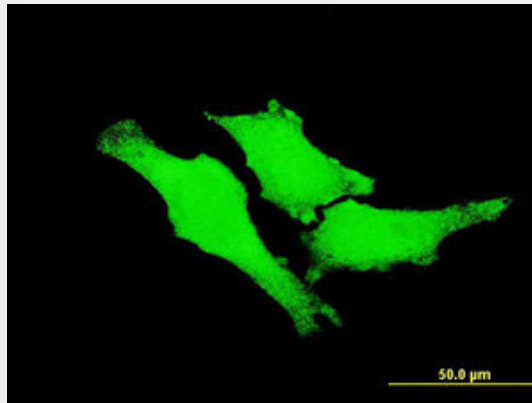
Expressed in a variety of tumor tissues including primary breast tumors and tumors from small bowel, esophagus, kidney and mouth.

ERBB2 / HER2 Antibody (clone 4E1) - Protocols

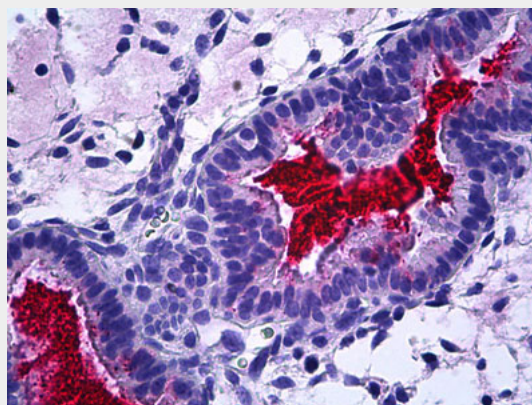
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ERBB2 / HER2 Antibody (clone 4E1) - Images



Immunofluorescence of monoclonal antibody to ERBB2 on HeLa cell. [antibody concentration 10 ug/ml].



Anti-ERBB2 / HER2 antibody IHC of human uterus, endometrium.

ERBB2 / HER2 Antibody (clone 4E1) - Background

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.

ERBB2 / HER2 Antibody (clone 4E1) - References

Yamamoto T.,et al.Nature 319:230-234(1986).
Coussens L.,et al.Science 230:1132-1139(1985).
Wakamatsu A.,et al.Submitted (OCT-2007) to the EMBL/GenBank/DDBJ databases.
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Tal M.,et al.Mol. Cell. Biol. 7:2597-2601(1987).