ERBB2 / HER2 Antibody (clone 3B5)
Mouse Monoclonal Antibody
Catalog # ALS16525

Specification

ERBB2 / HER2 Antibody (clone 3B5) - Product Information

Application	IHC
Primary Accession	P04626
Other Accession	2064
Reactivity	Human, Mouse, Rat, Monkey
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	137910

ERBB2 / HER2 Antibody (clone 3B5) - Additional Information

Gene ID 2064

Other Names
ERBB2, C-erb B2/neu protein, CD340, HER2, Herstatin, MLN 19, HER-2, Neu, NGL, Proto-oncogene c-ErbB-2, Proto-oncogene Neu, CD340 antigen, MLN19, p185erbB2, TKR1

Target/Specificity
Sequence is identical in rat Neu protein. Reacts equally well with the wild as well as the mutant (oncogenic) form c-erbB-2 protein but preferentially recognizes the unphosphorylated form of c-erbB-2 protein.

Reconstitution & Storage
PBS containing 0.09% sodium azide. Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
ERBB2 / HER2 Antibody (clone 3B5) is for research use only and not for use in diagnostic or therapeutic procedures.

ERBB2 / HER2 Antibody (clone 3B5) - 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.

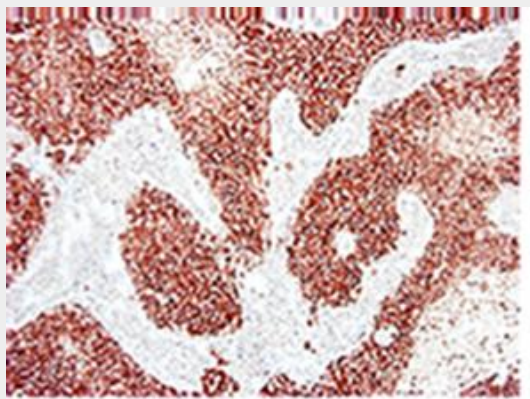**ERBB2 / HER2 Antibody (clone 3B5) - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
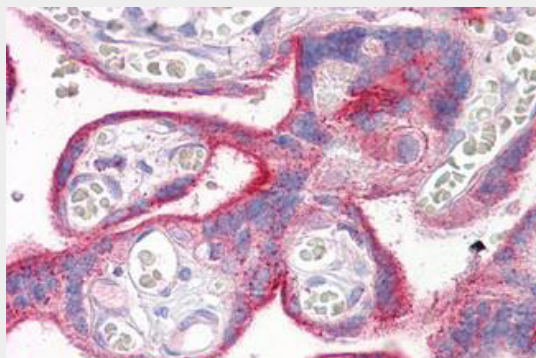- Flow Cytomety
- Cell Culture

ERBB2 / HER2 Antibody (clone 3B5) - Images
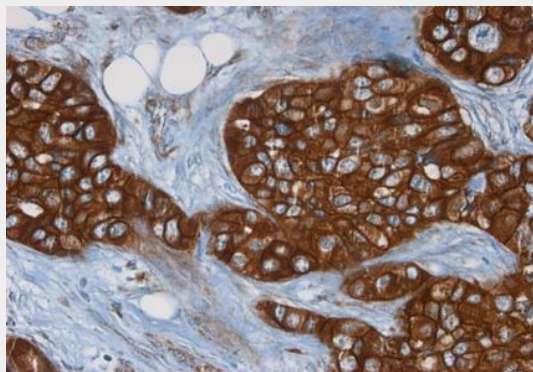
Immunohistochemistry on paraffin section of human Mamma tumor Her2Neu +

Immunohistochemistry on paraffin section of human breast carcinoma

Anti-ERBB2 / HER2 antibody IHC of human placenta.

ERBB2 / HER2 Antibody (clone 3B5) - 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 3B5) - 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).