

# ERBB2 Antibody (C-term T1172/S1174)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP18891b

## **Product Information**

**Application** WB, E **Primary Accession** P04626

Other Accession <u>P06494</u>, <u>P70424</u>, <u>NP\_001005862.1</u>

Reactivity
Predicted
Mouse, Rat
Host
Clonality
Polyclonal
Isotype
Rabbit IgG
Calculated MW
Antigen Region
Human, Mouse
Rouse
Mouse, Rat
Rabbit
Rabbit
137910
1151-1179

# **Additional Information**

Gene ID 2064

Other Names 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, CD340, ERBB2, HER2,

MLN19, NEU, NGL

**Target/Specificity** This ERBB2 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 1151-1179 amino acids from the

C-terminal region of human ERBB2.

**Dilution** WB~~1:1000 E~~Use at an assay dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** ERBB2 Antibody (C-term T1172/S1174) is for research use only and not for use

in diagnostic or therapeutic procedures.

## **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.

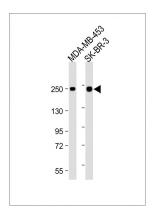
# **Background**

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.

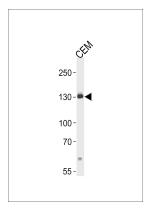
### References

Geradts, J., et al. Cancer Invest. 28(9):969-977(2010)
Zaoui, K., et al. Proc. Natl. Acad. Sci. U.S.A. 107(43):18517-18522(2010)
Oliveras, G., et al. Ann. N. Y. Acad. Sci. 1210, 86-92 (2010):
Han, J.S., et al. Anticancer Res. 30(9):3407-3412(2010)
Stackievicz, R., et al. Isr. Med. Assoc. J. 12(5):290-295(2010)

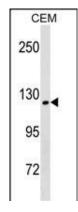
# **Images**



All lanes: Anti-ERBB2-T1172/S1174 at 1:2000 dilution Lane 1: MDA-MB-453 whole cell lysate Lane 2: SK-BR-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 138 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



ERBB2 Antibody (T1172/S1174) (Cat. #AP18891b) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the ERBB2 antibody detected the ERBB2 protein (arrow).



ERBB2 Antibody (C-term T1172/S1174)(Cat. #AP18891b) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the ERBB2 antibody detected the ERBB2 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.