

ARG54976 anti-ERBB2 / HER2 phospho (Tyr1221) antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ERBB2 / HER2 phospho (Tyr1221)
Tested Reactivity	Hu
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ERBB2 / HER2
Species	Human
Immunogen	KLH-conjugated phosphospecific peptide around Tyr1221 of Human ERBB2.
Conjugation	Un-conjugated
Alternate Names	p185erbB2; Proto-oncogene c-ErbB-2; Metastatic lymph node gene 19 protein; Proto-oncogene Neu; NGL; EC 2.7.10.1; CD340; CD antigen CD340; TKR1; HER-2; Tyrosine kinase-type cell surface receptor HER2; HER2; NEU; HER-2/neu; MLN 19; Receptor tyrosine-protein kinase erbB-2

Application Instructions

Application table	<table><thead><tr><th>Application</th><th>Dilution</th></tr></thead><tbody><tr><td>WB</td><td>1:1000</td></tr></tbody></table>	Application	Dilution	WB	1:1000
Application	Dilution				
WB	1:1000				
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.				
Positive Control	A431 + EGF				

Properties

Form	Liquid
Purification	Purification with Protein A and immunogen peptide.
Buffer	PBS and 0.09% (W/V) Sodium azide
Preservative	0.09% (W/V) Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links

[GeneID: 2064 Human](#)

[Swiss-port # P04626 Human](#)

Gene Symbol

ERBB2

Gene Full Name

erb-b2 receptor tyrosine kinase 2

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. [provided by RefSeq, Jul 2008]

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. [UniProt]

Research Area

Cancer antibody; Controls and Markers antibody; Signaling Transduction antibody; Circulating Tumor Cells BioMarker antibody

Calculated Mw

138 kDa

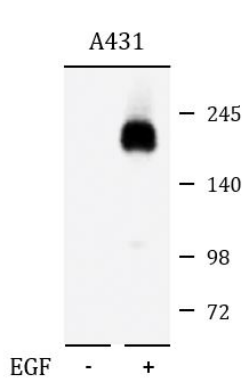
PTM

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 (PubMed:27134172). Signaling via SEMA4C promotes phosphorylation at Tyr-1248 (PubMed:17554007). Dephosphorylated by PTPN12 (PubMed:27134172).

Cellular Localization

Isoform 1: Cell membrane; Single-pass type I membrane protein. Cytoplasm, perinuclear region. Nucleus Note=Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1 Isoform 3: Cytoplasm. Nucleus.

Images



ARG54976 anti-ERBB2 / HER2 phospho (Tyr1221) antibody WB image

Western blot: A431 cells untreated or treated with EGF and stained with ARG54976 anti-ERBB2 / HER2 phospho (Tyr1221) antibody.