

Product datasheet

Anti-ErbB 2 (phospho Y1221 + Y1222) antibody [EPR1047] ab91633

Recombinant RabMAb

[1 References](#) [2 Images](#)

Overview

Product name	Anti-ErbB 2 (phospho Y1221 + Y1222) antibody [EPR1047]
Description	Rabbit monoclonal [EPR1047] to ErbB 2 (phospho Y1221 + Y1222)
Host species	Rabbit
Specificity	ab91633 detects ErbB 2 phosphorylated at tyrosine 1222.
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Human
Immunogen	Phosphospecific peptide corresponding to residues surrounding tyrosine 1222 of Human ErbB 2 (UniProt ID: P04626).
Positive control	SKBR3 cell lysate
General notes	A trial size is available to purchase for this antibody. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab[®] patents This product is a recombinant rabbit monoclonal antibody.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05%
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPR1047
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab91633** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
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WB

Application notes

WB: 1/5000. Predicted molecular weight: 138 kDa.

Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

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.

Tissue specificity

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

Involvement in disease

Hereditary diffuse gastric cancer

Glioma

Ovarian cancer

Lung cancer

Gastric cancer

Chromosomal aberrations involving ERBB2 may be a cause gastric cancer. Deletions within 17q12 region producing fusion transcripts with CDK12, leading to CDK12-ERBB2 fusion leading to truncated CDK12 protein not in-frame with ERBB2.

Sequence similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.

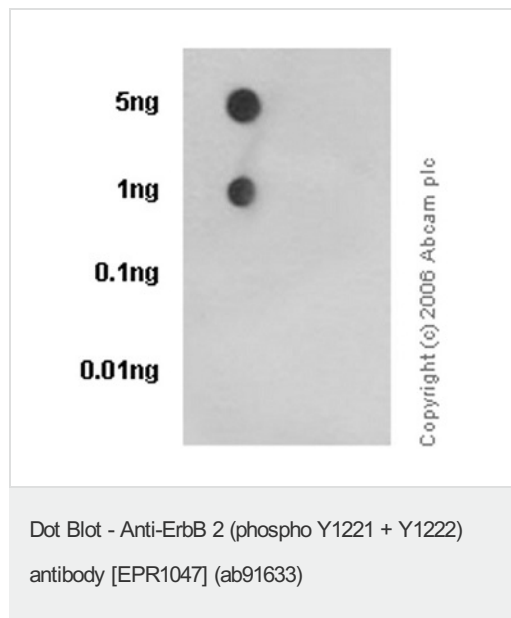
Post-translational modifications

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

Cytoplasm. Nucleus and Cell membrane. Cytoplasm, perinuclear region. Nucleus. Translocation to the nucleus requires endocytosis, probably endosomal sorting and is mediated by importin beta-1/KPNB1.

Images



Primary antibody dilution: 1/1000

Secondary antibody: goat anti-rabbit IgG, (H+L), peroxidase conjugated

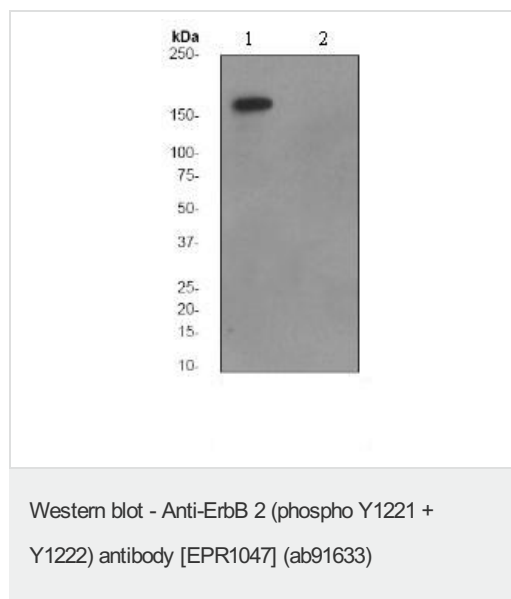
Secondary antibody dilution: 1/2500

Blocking & dilution buffer: 5% NDM/TBST

Lane 1 sample: ErbB 2 (pY1221/pY1222) phospho peptide

Lane 2 sample: ErbB 2 non-phospho peptide

Exposure time: 3 minutes



All lanes : Anti-ErbB 2 (phospho Y1221 + Y1222) antibody [EPR1047] (ab91633) at 1/5000 dilution

Lane 1 : SKBR3 cell lysate was untreated

Lane 2 : SKBR3 cell lysate was treated with Lambda phosphatase.

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/1000 dilution

Predicted band size: 138 kDa

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