

Product datasheet

Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] ab108371

Recombinant RabMAb

★ ★ ★ ★ ★ [1 Abreviews](#) [6 References](#) [7 Images](#)

Overview

Product name	Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y]
Description	Rabbit monoclonal [EP2324Y] to ErbB2 / HER2 (phospho Y877)
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Dot blot, ICC/IF, Flow Cyt (Intra) Unsuitable for: IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HeLa cell lysate, SKBR-3 cell lysate, Human breast ductal infiltrating carcinoma tissue, SKBR-3 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form Liquid

Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.31% Sodium citrate, 0.175% Sodium chloride, 0.0172% EDTA disodium salt, 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP2324Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108371 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
WB	★★★★★ (1)	1/500 - 1/1000. Predicted molecular weight: 138 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Perform antigen retrieval before commencing with IHC staining protocol
Dot blot		1/1000.
ICC/IF		1/50 - 1/100.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Application notes Is unsuitable for IP.

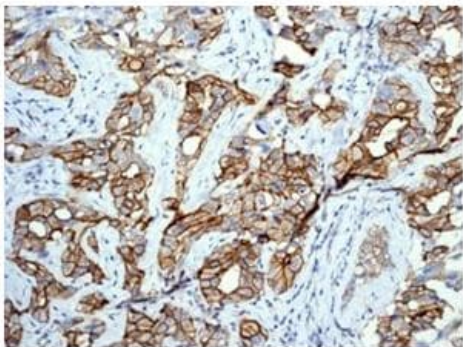
Target

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	<p>Hereditary diffuse gastric cancer</p> <p>Glioma</p> <p>Ovarian cancer</p> <p>Lung cancer</p> <p>Gastric cancer</p> <p>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.</p>
Sequence similarities	<p>Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily. Contains 1 protein kinase domain.</p>
Post-translational modifications	<p>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).</p>
Cellular localization	<p>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.</p>

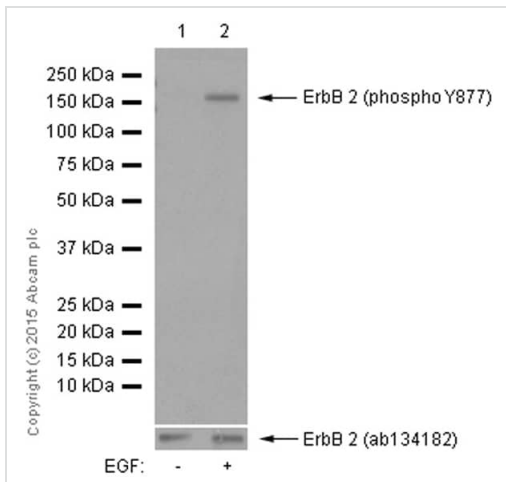
Images



ab108371, at 1/250, staining Human ErbB2 / HER2 (phospho Y877) in Human breast ductal infiltrating carcinoma tissue by immunohistochemistry.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)



Western blot - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

All lanes : Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371) at 1/1000 dilution

Lane 1 : A431 cell lysate - untreated

Lane 2 : A431 cell lysate - treated with Epidermal Growth Factor (EGF)

Lysates/proteins at 10 µg per lane.

Secondary

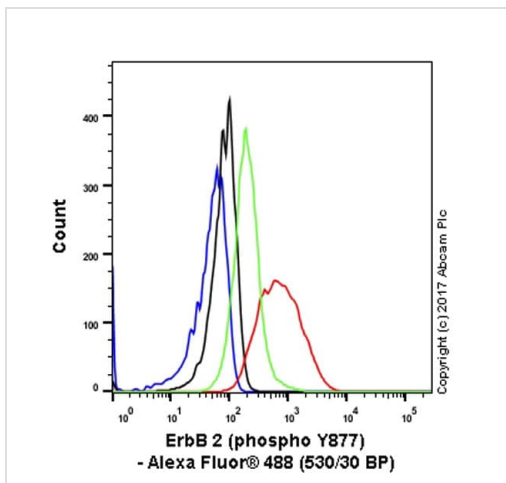
All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/100000 dilution

Predicted band size: 138 kDa

Observed band size: 180 kDa

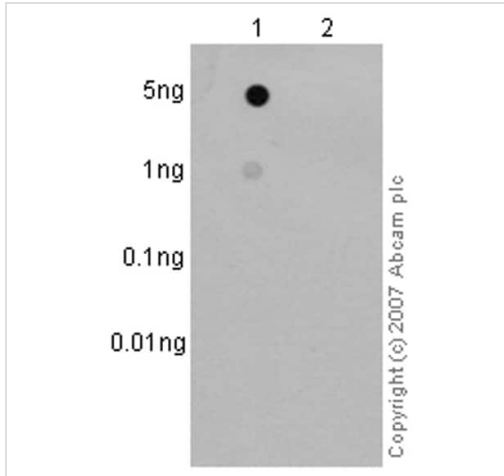
Exposure time: 1 minute

Blocking and dilution buffer: 5% NFDm/TBST.



Flow Cytometry (Intracellular) - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) untreated/treated with 200 ng/ml EGF for 15 minutes labeling ErbB2 / HER2 with purified ab108371 at 1/20. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

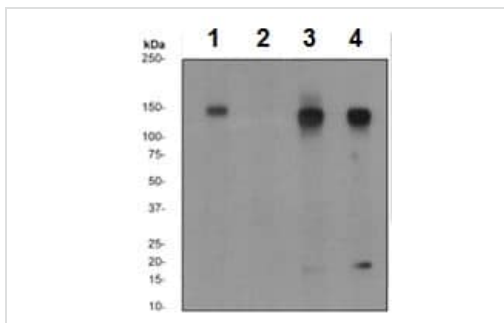


Dot Blot - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

Dot blot analysis of ErbB 2 (pY877) peptide (Lane 1) and ErbB2 / HER2 non-phospho peptide (Lane 2) labelling ErbB 2 (phospho Y877) with ab108371 at a dilution of 1/1000. A Peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody at a dilution of 1/2500.

Blocking and dilution buffer: 5% NFDm/TBST.

Exposure time: 3 minutes.



Western blot - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

All lanes : Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371) at 1/500 dilution

Lane 1 : HeLa cell lysate

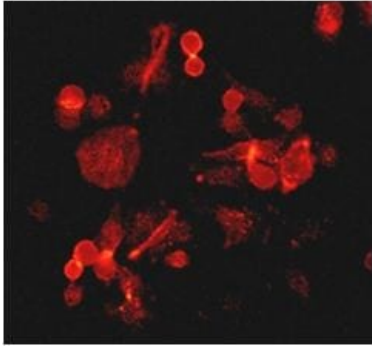
Lane 2 : EGF treated HeLa cell lysate

Lane 3 : SKBR-3 cell lysate

Lane 4 : EGF treated SKBR-3 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 138 kDa



ab108371, at 1/50 dilution, staining Human ErbB2 / HER2 (phospho Y877) in SKBR-3 cells by immunofluorescence.

Immunocytochemistry/ Immunofluorescence - Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-ErbB2 / HER2 (phospho Y877) antibody [EP2324Y] (ab108371)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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