

Product datasheet

Anti-ErbB 2 antibody [CB2D7] (Phycoerythrin) ab106676

1 Image

Overview

| | |
|----------------------------|-------------------------------------------------------------------|
| Product name | Anti-ErbB 2 antibody [CB2D7] (Phycoerythrin) |
| Description | Mouse monoclonal [CB2D7] to ErbB 2 (Phycoerythrin) |
| Host species | Mouse |
| Conjugation | Phycoerythrin. Ex: 488nm, Em: 575nm |
| Tested applications | Suitable for: Flow Cyt |
| Species reactivity | Reacts with: Human, Monkey |
| Immunogen | The details of the immunogen for this antibody are not available. |
| Positive control | HER2+ cells |

Properties

| | |
|-----------------------------|------------------------------------------------------------------------|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C. |
| Storage buffer | Preservative: 0.1% Sodium Azide Constituents: 0.5% BSA, PBS, pH 7.4 |
| Purity | Size exclusion |
| Clonality | Monoclonal |
| Clone number | CB2D7 |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab106676** 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 |
|-------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flow Cyt | | Use 10µl for 10 ⁶ cells. (leucocytes) in 100 µl of whole blood. ab37392 - Mouse monoclonal IgG, is suitable for use as an isotype control with this antibody. |

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.

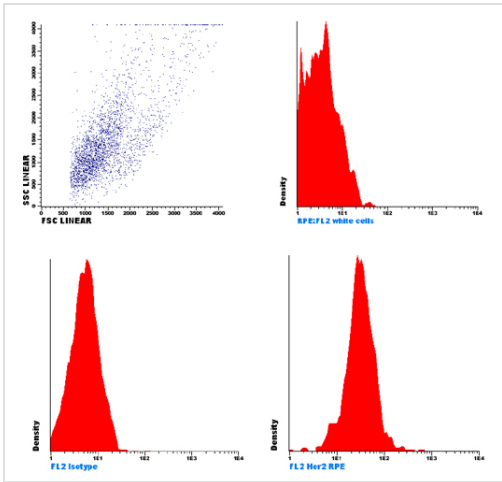
Post-translational modifications

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



Flow Cytometry - Anti-ErbB 2 antibody [CB2D7]
(Phycoerythrin) (ab106676)

ab106676 staining ErbB 2 in the Human mammary gland adenocarcinoma cell line by Flow Cytometry. The cells were then incubated with the antibody (ab106676, 10 ul for 3-5x10⁶ cells) for 30 minutes in the dark at room temperature. The isotype control antibody (bottom left panel) was used under the same conditions and was IgG1. The negative control (top right panel) was unstained Human mammary gland adenocarcinoma cells.

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