

Product datasheet

Anti-EGFR antibody [EGFR1] (Phycoerythrin) ab130738

4 References 1 Image

Overview

Product name	Anti-EGFR antibody [EGFR1] (Phycoerythrin)
Description	Mouse monoclonal [EGFR1] to EGFR (Phycoerythrin)
Host species	Mouse
Conjugation	Phycoerythrin. Ex: 488nm, Em: 575nm
Specificity	ab130738 reacts with the extracellular domain of Human EGFR.
Tested applications	Suitable for: Flow Cyt
Species reactivity	Reacts with: Horse, Human Does not react with: Mouse
Immunogen	Human epidermoid carcinoma line A431
Epitope	Within amino acids 6-273
Positive control	Human blood cells

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Preservative: 0.1% Sodium azide Constituents: 99% PBS, 0.2% BSA
Purity	Size exclusion
Purification notes	Purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Clonality	Monoclonal
Clone number	EGFR1
Isotype	IgG2b

Applications

Our [Abpromise guarantee](#) covers the use of **ab130738** in the following tested applications.

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

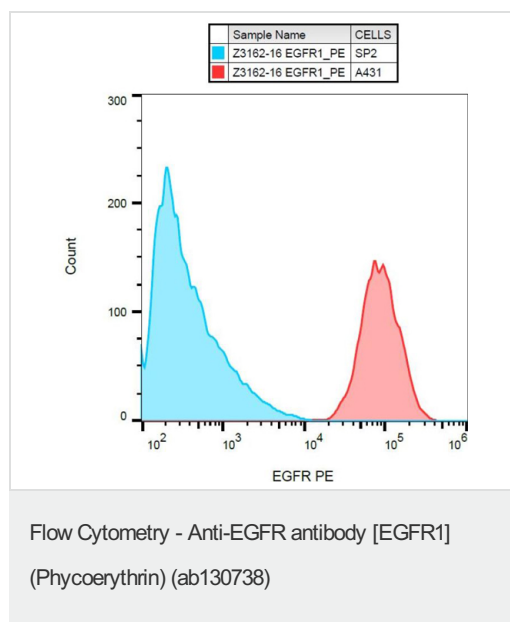
Application	Abreviews	Notes
Flow Cyt		Use 10µl for 10 ⁶ cells. or 100 µl of whole blood.

[ab91532](#) - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Target

Function	<p>Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor recruits adapter proteins like GRB2 which in turn activates complex downstream signaling cascades. Activates at least 4 major downstream signaling cascades including the RAS-RAF-MEK-ERK, PI3 kinase-AKT, PLCgamma-PKC and STATs modules. May also activate the NF-kappa-B signaling cascade. Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G protein-coupled receptor signaling. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin.</p> <p>Isoform 2 may act as an antagonist of EGF action.</p>
Tissue specificity	Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.
Involvement in disease	<p>Lung cancer</p> <p>Inflammatory skin and bowel disease, neonatal, 2</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>Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated. Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits STAT3. Dephosphorylated by PTPN1 and PTPN2.</p> <p>Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting. Polyubiquitin linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occurs. Deubiquitination by OTUD7B prevents degradation. Ubiquitinated by RNF115 and RNF126.</p> <p>Methylated. Methylation at Arg-1199 by PRMT5 stimulates phosphorylation at Tyr-1197.</p>
Cellular localization	<p>Secreted and Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus membrane. Nucleus membrane. Endosome. Endosome membrane. Nucleus. In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand. Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF).</p>

Images



Analysis by flow cytometry of ab130738 staining EGFR in A431 cells.

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