

EGFR Antibody (Y1092)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7628p

Specification

EGFR Antibody (Y1092) - Product Information

Application WB,E
Primary Accession P00533
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Antigen Region 1070-1099

EGFR Antibody (Y1092) - Additional Information

Gene ID 1956

Other Names

Epidermal growth factor receptor, Proto-oncogene c-ErbB-1, Receptor tyrosine-protein kinase erbB-1, EGFR, ERBB, ERBB1, HER1

Target/Specificity

This EGFR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1070-1099 amino acids from human EGFR.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

EGFR Antibody (Y1092) is for research use only and not for use in diagnostic or therapeutic procedures.

EGFR Antibody (Y1092) - Protein Information

Name EGFR (HGNC:3236)

Synonyms ERBB, ERBB1, HER1



Function Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:10805725, PubMed:27153536, PubMed:2790960, PubMed:35538033). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed: 12297049, PubMed: 15611079, PubMed: 17909029, PubMed: 20837704, PubMed: 27153536, PubMed: 2790960, PubMed: 7679104, PubMed: 8144591, PubMed: 9419975). 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 (PubMed:27153536). May also activate the NF-kappa-B signaling cascade (PubMed:11116146). 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 (PubMed: 11602604). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed: 11483589). Positively regulates cell migration via interaction with CCDC88A/GIV which retains EGFR at the cell membrane following ligand stimulation, promoting EGFR signaling which triggers cell migration (PubMed: 20462955). Plays a role in enhancing learning and memory performance (By similarity). Plays a role in mammalian pain signaling (long-lasting hypersensitivity) (By similarity).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein Golgi apparatus membrane; Single-pass type I membrane protein. Nucleus membrane; Single-pass type I membrane protein. Endosome. Endosome membrane. Nucleus. Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER (PubMed:17909029, PubMed:20674546). Endocytosed upon activation by ligand (PubMed:17182860, PubMed:17909029, PubMed:27153536, PubMed:2790960). Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF) (PubMed:20551055)

Tissue Location

Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

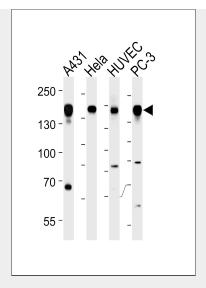
EGFR Antibody (Y1092) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

EGFR Antibody (Y1092) - Images





EGFR Antibody (pY1092) (Cat.# AP7628p) western blot analysis in A431,Hela,HUVEC,PC-3 cell line lysates (35ug/lane).This demonstrates the EGFR antibody detected the EGFR protein (arrow).

EGFR Antibody (Y1092) - Background

The epidermal growth factor receptor is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands. The epidermal growth factor receptor is a member of the ErbB family of receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3) and Her 4 (ErbB-4). Mutations affecting EGFR expression or activity could result in cancer.

EGFR Antibody (Y1092) - References

Zanardi, T.A., et al., J. Virol. 77(21):11685-11696 (2003). Krug, A.W., et al., J. Biol. Chem. 278(44):43060-43066 (2003). Huang, F., et al., J. Biol. Chem. 278(44):43411-43417 (2003). He, Y.Y., et al., J. Biol. Chem. 278(43):42457-42465 (2003). Hirsch, F.R., et al., J. Clin. Oncol. 21(20):3798-3807 (2003).

EGFR Antibody (Y1092) - Citations

- Role of thioredoxin reductase 1 in dysplastic transformation of human breast epithelial cells triggered by chronic oxidative stress.
- Induction of Apoptosis in Human Leukemic Cell Lines by Diallyl Disulfide via Modulation of EGFR/ERK/PKM2 Signaling Pathways.