

EGFR Antibody (Y1092)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5174

Specification

EGFR Antibody (Y1092) - Product Information

Application	WB, IHC-P,E
Primary Accession	P00533
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	H=134;M=135;Rat=137 KDa
Isotype	Rabbit IgG
Antigen Source	HUMAN

EGFR Antibody (Y1092) - Additional Information

Gene ID 1956

Antigen Region
1070-1099

Other Names

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

Dilution

WB~~1:1000

IHC-P~~1:25

Target/Specificity

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

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](http://www.uniprot.org/citations/10805725), PubMed:[27153536](http://www.uniprot.org/citations/27153536), PubMed:[2790960](http://www.uniprot.org/citations/2790960), PubMed:[35538033](http://www.uniprot.org/citations/35538033)). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:[12297049](http://www.uniprot.org/citations/12297049), PubMed:[15611079](http://www.uniprot.org/citations/15611079), PubMed:[17909029](http://www.uniprot.org/citations/17909029), PubMed:[20837704](http://www.uniprot.org/citations/20837704), PubMed:[27153536](http://www.uniprot.org/citations/27153536), PubMed:[2790960](http://www.uniprot.org/citations/2790960), PubMed:[7679104](http://www.uniprot.org/citations/7679104), PubMed:[8144591](http://www.uniprot.org/citations/8144591), PubMed:[9419975](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/27153536)). May also activate the NF-kappa-B signaling cascade (PubMed:[11116146](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11602604)). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:[11483589](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

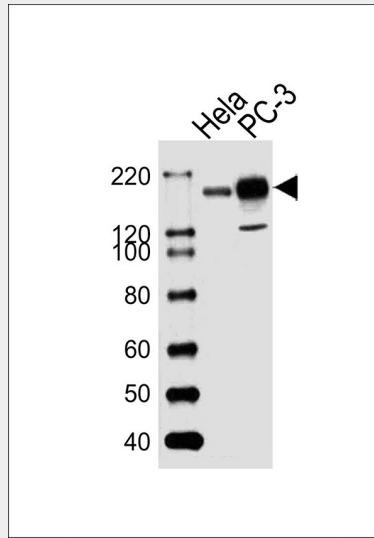
Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

EGFR Antibody (Y1092) - Protocols

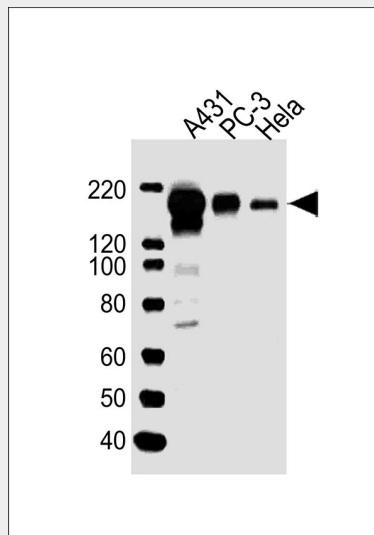
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

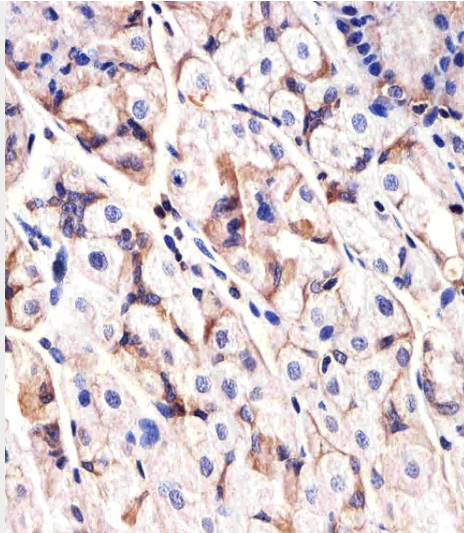
EGFR Antibody (Y1092) - Images



Western blot analysis of lysates from HeLa, PC-3 cell line (from left to right), using EGFR-Y1092 Antibody (Cat. #AW5174). AW5174 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.



"All lanes : Anti-EGFR Antibody at 1:1000 dilution Lane 1: A431 whole cell lysates Lane 2: PC-3 whole cell lysates Lane 3: HeLa whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 134 kDa Blocking/Dilution buffer: 5% NFDN/TBST."



Immunohistochemical analysis of paraffin-embedded H. stomach section using EGFR Antibody (Y1092)(Cat#AW5174). AW5174 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

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).