

EGFR Antibody (S1070)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7628s

Specification

EGFR Antibody (S1070) - Product Information

Application	IHC-P, WB,E
Primary Accession	P00533
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	134277
Antigen Region	1048-1077

EGFR Antibody (S1070) - 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 1048-1077 amino acids from human EGFR.

Dilution

IHC-P~~1:10~50

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 (S1070) is for research use only and not for use in diagnostic or therapeutic procedures.

EGFR Antibody (S1070) - 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

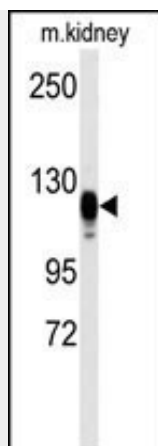
Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

EGFR Antibody (S1070) - Protocols

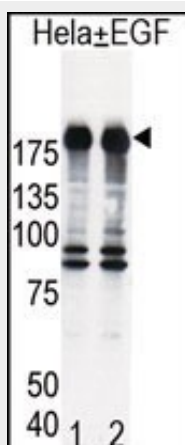
Provided below are standard protocols that you may find useful for product applications.

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

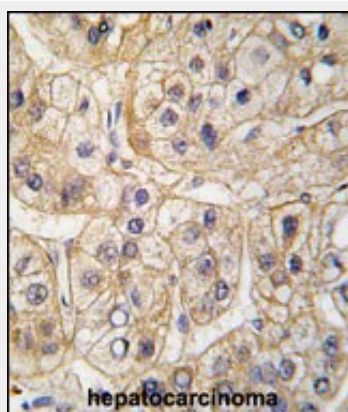
EGFR Antibody (S1070) - Images



Western blot analysis of anti-EGFR Antibody (S1070) (Cat.#AP7628s) in kidney heart tissue lysates (35ug/lane). EGFR (arrow) was detected using the purified Pab.



Western blot analysis of EGFR (arrow) in Hela cell lysates, either induced (Lane 1) or noninduced with EGF (Lane 2).



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with EGFR Antibody (S1070), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

EGFR Antibody (S1070) - 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 (S1070) - 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).