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EGFR Antibody (S1070)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7628s

Specification

EGFR Antibody (S1070) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	P00533
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
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

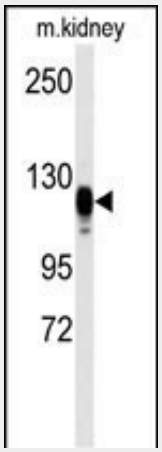
Target/Specificity
This EGFR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1048-1077 amino acids from human EGFR.

Dilution
WB~~1:1000
IHC-P~~1:10~50

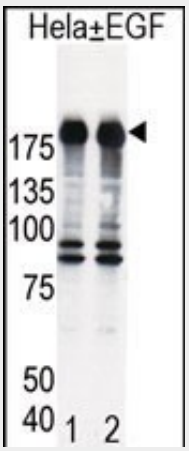
Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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



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).

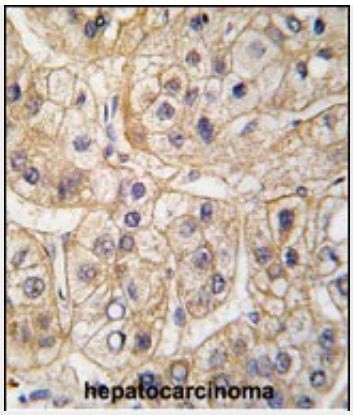
therapeutic procedures.

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:2790960, PubMed:10805725, PubMed:27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975, PubMed:15611079, PubMed:12297049, PubMed:27153536, PubMed:20837704, PubMed:17909029). Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic residues. The phosphorylated receptor



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).

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).

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:20674546, PubMed:17909029). Endocytosed upon activation by ligand (PubMed:2790960, PubMed:17182860, PubMed:27153536, PubMed:17909029). 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.

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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 Cytomety
- Cell Culture