

EGF Receptor Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52829**Specification**

EGF Receptor Antibody - Product Information

Application	WB, ICC, IP
Primary Accession	P00533
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	175 KDa

EGF Receptor Antibody - Additional Information**Gene ID** 1956**Other Names**

Avian erythroblastic leukemia viral (v erb b) oncogene homolog;Cell growth inhibiting protein 40;Cell proliferation inducing protein 61;EGF R;EGFR;EGFR_HUMAN;Epidermal growth factor receptor (avian erythroblastic leukemia viral (v erb b) oncogene homolog);Epidermal growth factor receptor (erythroblastic leukemia viral (v erb b) oncogene homolog avian);Epidermal growth factor receptor;erbb 1;ErbB;ErbB1;ERBB1;Errp;HER1;mENA;Oncogene ERBB;PIG61;Proto-oncogene c-ErbB-1;Receptor tyrosine protein kinase ErbB 1;Receptor tyrosine-protein kinase ErbB-1;Urogastrone;wa2;Wa5.

Dilution

WB~~1:1000

ICC~~1:200

IP~~1:500

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Storage

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

EGF Receptor Antibody - 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:<a

[>27153536](http://www.uniprot.org/citations/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 CDC88A/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.

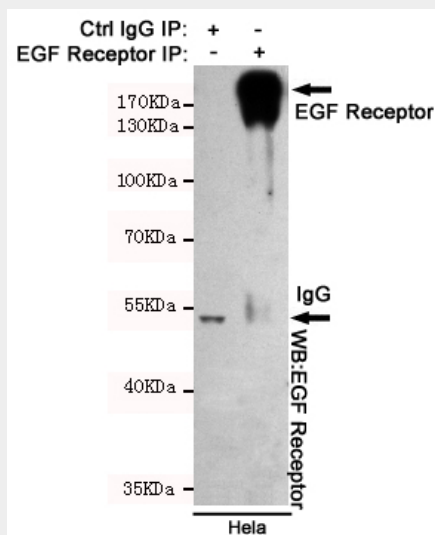
EGF Receptor Antibody - Protocols

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

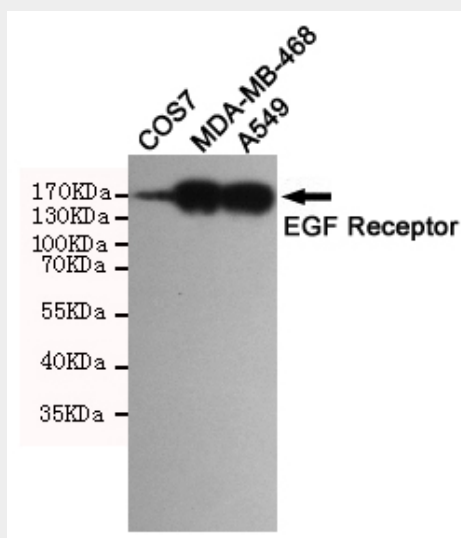
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

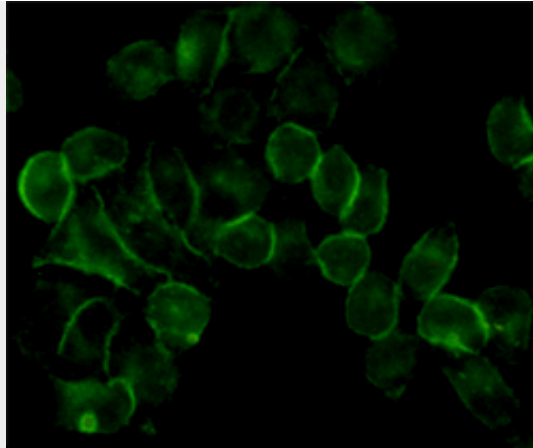
EGF Receptor Antibody - Images



Immunoprecipitation analysis of Hela cell lysates using EGFR mouse mAb.



Western blot detection of EGFR in A549,MDA-MB-468 and COS7 cell lysates using EGFR mouse mAb(dilution 1:1000).Predicted band size:134 Kda.Observed band size:175KDa.



Immunocytochemistry staining of HeLa cells using EGFR mouse mAb (dilution 1:200).

EGF Receptor Antibody - Background

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- α , 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.

EGF Receptor Antibody - References

Ullrich A., et al. Nature 309:418-425(1984).
Ilekis J.V., et al. Mol. Reprod. Dev. 41:149-156(1995).
Reiter J.L., et al. Nucleic Acids Res. 24:4050-4056(1996).
Ilekis J.V., et al. Gynecol. Oncol. 65:36-41(1997).
Reiter J.L., et al. Genomics 71:1-20(2001).