

EGF Receptor Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AP52828-100 □

Specification

EGF Receptor Antibody - Product Information

Application	WB, ICC, IP, IHC
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

IHC~1:100

Format

Purified mouse monoclonal antibody in PBS(pH 7.4) containing with 0.02% sodium azide and 50% glycerol.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

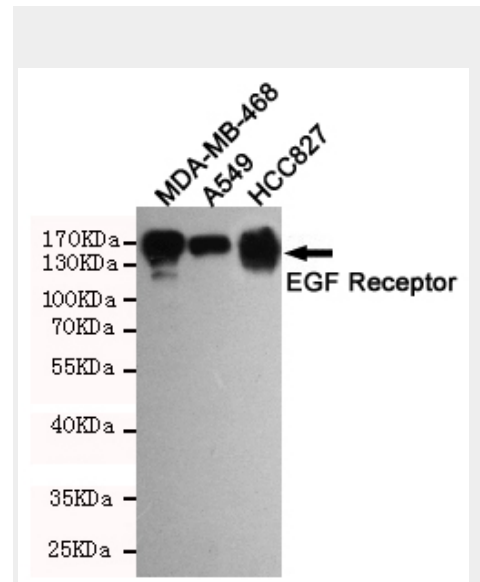
EGF Receptor Antibody - Protein Information

Name EGFR

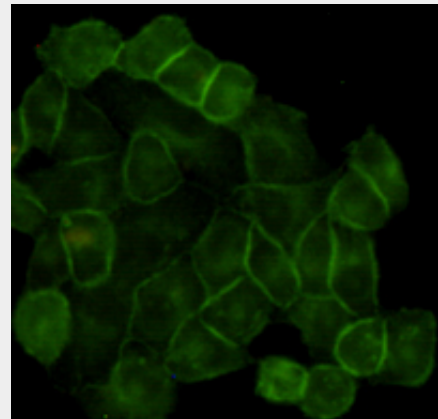
Synonyms ERBB, ERBB1, HER1

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:<a href="http://www.uniprot.org/citations/10805725"



Western blot detection of EGFR in HCC827, A549 and MDA-MB-468 cell lysates using EGFR mouse mAb (dilution 1:1000). Predicted band size: 134 kDa. Observed band size: 175 kDa.



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

target="_blank">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). 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). 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). Endocytosed upon activation by ligand (PubMed:2790960, PubMed:17182860, PubMed:27153536). Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF) (PubMed:20551055)

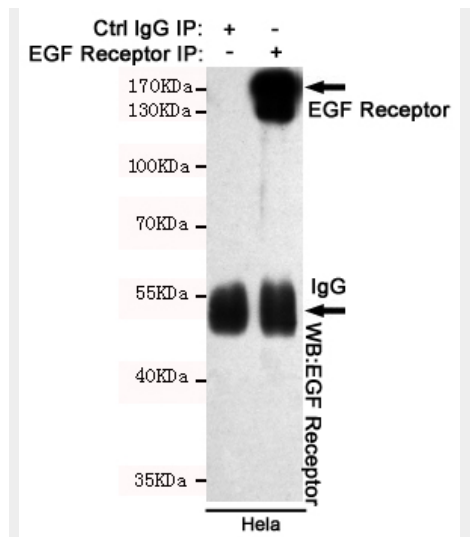
Tissue Location

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

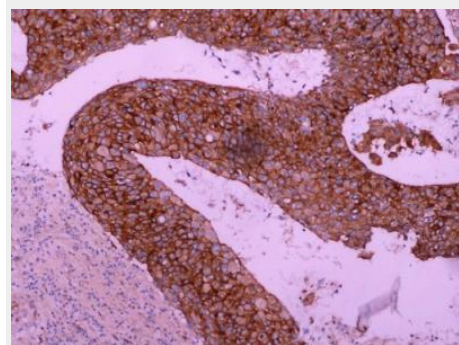
EGF Receptor Antibody - Protocols

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

- [□Western Blot](#)
- [□Blocking Peptides](#)



Immunoprecipitation analysis of HeLa cell lysates using EGFR mouse mAb.



Immunohistochemical analysis of paraffin-embedded Lung carcinoma using EGF Receptor (3F12) mouse mAb (1/800 dilution) at the Roche Benchmark XT system.

- [□ Dot Blot](#)
- [□ Immunohistochemistry](#)
- [□ Immunofluorescence](#)
- [□ Immunoprecipitation](#)
- [□ Flow Cytometry](#)
- [□ Cell Culture](#)

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-alpha, 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).