

EGFR Antibody (Internal)
Sheep Polyclonal Antibody
Catalog # ALS12535**Specification**

EGFR Antibody (Internal) - Product Information

Application	WB, IHC-P, ICC, IP
Primary Accession	P00533
Reactivity	Human, Mouse, Rat, Chicken
Host	Sheep
Clonality	Polyclonal
Calculated MW	134kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A ICC~~N/A IP~~N/A

EGFR Antibody (Internal) - Additional Information**Gene ID** 1956**Other Names**

Epidermal growth factor receptor, 2.7.10.1, Proto-oncogene c-ErbB-1, Receptor tyrosine-protein kinase erbB-1, EGFR, ERBB, ERBB1, HER1

Target/Specificity

This EGFR antibody recognizes a region of the internal domain. Antibody binding blocks phosphorylation and does not interfere with EGF binding.

Reconstitution & Storage

Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

EGFR Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

EGFR Antibody (Internal) - 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:<a

[35538033](http://www.uniprot.org/citations/35538033)). Known ligands include EGF, TGFA/TGF- α , 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 CDC88A/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)

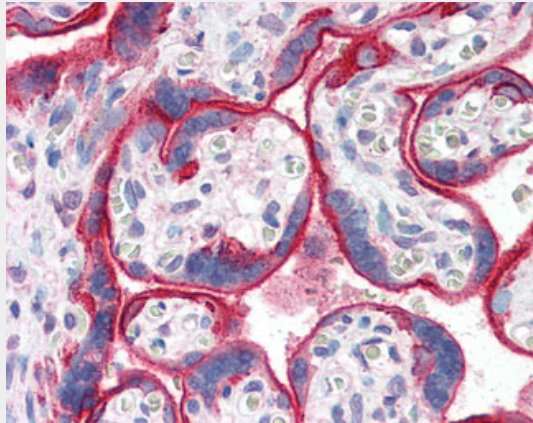
Tissue Location

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

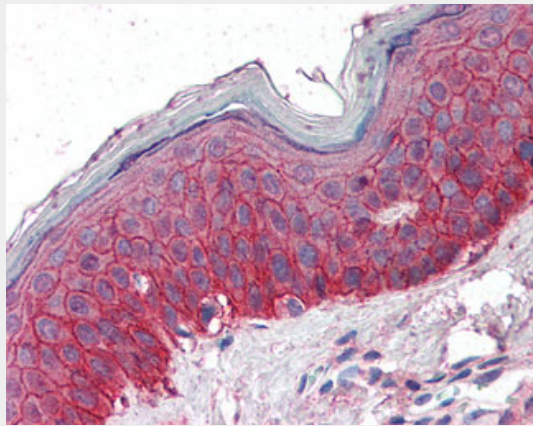
EGFR Antibody (Internal) - Protocols

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 (Internal) - Images

Anti-EGFR antibody IHC of human placenta.



Anti-EGFR antibody IHC of human skin.

EGFR Antibody (Internal) - 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/REG 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.

EGFR Antibody (Internal) - 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).