

**EGFR Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS11103****Specification**

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**EGFR Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">P00533</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	134kDa KDa

**EGFR Antibody - 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

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

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

**EGFR 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](http://www.uniprot.org/citations/10805725), PubMed: [27153536](http://www.uniprot.org/citations/27153536), PubMed: [2790960](http://www.uniprot.org/citations/2790960), PubMed: [35538033](http://www.uniprot.org/citations/35538033)). Known ligands include EGF, TGFA/TGF- alpha, 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))

target="\_blank">7679104</a>, PubMed:<a href="http://www.uniprot.org/citations/8144591" target="\_blank">8144591</a>, PubMed:<a href="http://www.uniprot.org/citations/9419975" target="\_blank">9419975</a>). 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:<a href="http://www.uniprot.org/citations/27153536" target="\_blank">27153536</a>). May also activate the NF-kappa-B signaling cascade (PubMed:<a href="http://www.uniprot.org/citations/11116146" target="\_blank">11116146</a>). 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:<a href="http://www.uniprot.org/citations/11602604" target="\_blank">11602604</a>). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:<a href="http://www.uniprot.org/citations/11483589" target="\_blank">11483589</a>). 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:<a href="http://www.uniprot.org/citations/20462955" target="\_blank">20462955</a>). 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.

#### Volume

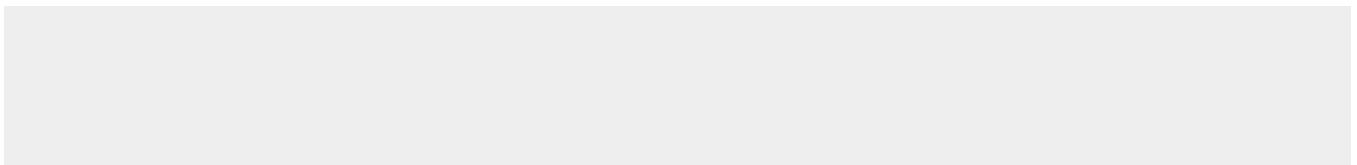
50 µl

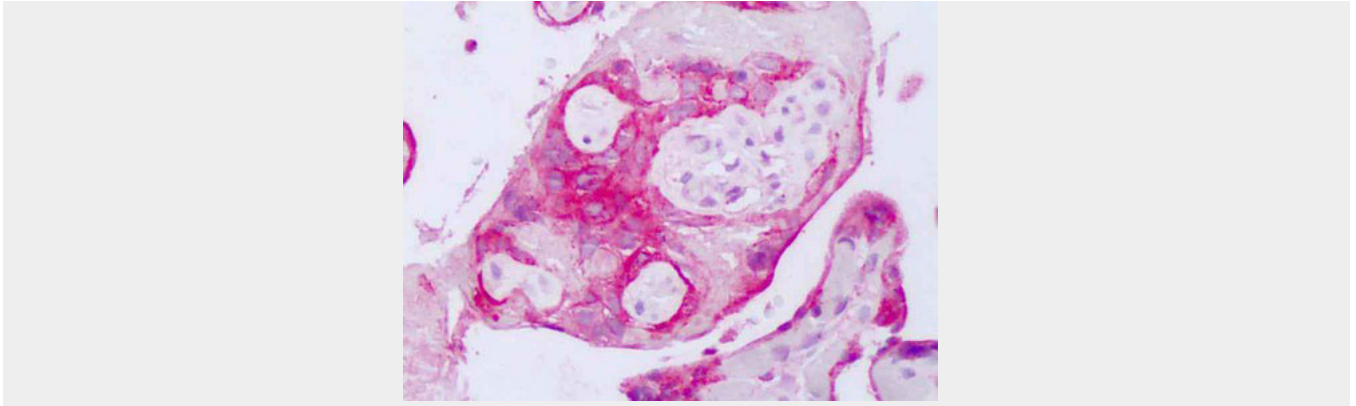
#### EGFR Antibody - Protocols

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](#)

#### EGFR Antibody - Images





Anti-EGFR antibody IHC of human placenta.

### **EGFR 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.

### **EGFR 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).