

# Mouse Egfr Antibody (P1116)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20926a

## **Product Information**

Application	WB, E
Primary Accession	<u>Q01279</u>
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50272
Calculated MW	134853

## **Additional Information**

Gene ID	13649
Other Names	Epidermal growth factor receptor, Egfr
Target/Specificity	This Mouse Egfr antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1116-1130 amino acids from the human region of Mouse Egfr.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	Mouse Egfr Antibody (P1116) is for research use only and not for use in diagnostic or therapeutic procedures.

### **Protein Information**

Name	Egfr {ECO:0000312 MGI:MGI:95294}
Function	Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed: <u>8404850</u> ). Known ligands include EGF, TGFA/TGF-alpha, AREG, 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 (By similarity). 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 (By similarity). Plays a role in enhancing learning and memory performance (PubMed:20639532). Plays a role in mammalian pain signaling (long- lasting hypersensitivity) (PubMed:35131940).
Cellular Location	Cell membrane {ECO:0000250   UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250   UniProtKB:P00533} Endoplasmic reticulum membrane {ECO:0000250   UniProtKB:P00533}; Single- pass type I membrane protein {ECO:0000250   UniProtKB:P00533}. Golgi apparatus membrane {ECO:0000250   UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250   UniProtKB:P00533}. Nucleus membrane {ECO:0000250   UniProtKB:P00533}; Single-pass type I membrane protein {ECO:0000250   UniProtKB:P00533}. Endosome {ECO:0000250   UniProtKB:P00533}. Endosome membrane {ECO:0000250   UniProtKB:P00533}. Nucleus {ECO:0000250   UniProtKB:P00533}. Nucleus {ECO:0000250   UniProtKB:P00533}. Nucleus
	from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand Colocalized with GPER1 in the nucleus of estrogen agonist-induced cancer-associated fibroblasts (CAF). {ECO:0000250 UniProtKB:P00533}

## 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.

## References

Avivi A., et al.Oncogene 7:1957-1962(1992). Paria B.C., et al.Proc. Natl. Acad. Sci. U.S.A. 90:55-59(1993). Hibbs M.L., et al.Submitted (APR-1994) to the EMBL/GenBank/DDBJ databases. Luetteke N.C., et al.Genes Dev. 8:399-413(1994). Avivi A., et al.Oncogene 6:673-676(1991).

#### Images



using Egfr Antibody (P1116)(Cat. #AP20926a). AP20926a was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.