

# EGFR Monoclonal Antibody(M6)

Catalog # AP63374

## Product Information

Application	WB
Primary Accession	<a href="#">P00533</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	134277

## Additional Information

Gene ID	1956
Other Names	EGFR; ERBB; ERBB1; HER1; Epidermal growth factor receptor; Proto-oncogene c-ErbB-1; Receptor tyrosine-protein kinase erbB-1
Dilution	WB~~WB: 1:1000-3000
Format	PBS, pH 7.4, containing 0.09% (W/V) sodium azide as Preservative and 50% Glycerol.
Storage Conditions	-20°C

## Protein Information

Name	EGFR ( <a href="#">HGNC:3236</a> )
Synonyms	ERBB, ERBB1, HER1
Function	<p>Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:<a href="#">10805725</a>, PubMed:<a href="#">27153536</a>, PubMed:<a href="#">2790960</a>, PubMed:<a href="#">35538033</a>). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:<a href="#">12297049</a>, PubMed:<a href="#">15611079</a>, PubMed:<a href="#">17909029</a>, PubMed:<a href="#">20837704</a>, PubMed:<a href="#">27153536</a>, PubMed:<a href="#">2790960</a>, PubMed:<a href="#">7679104</a>, PubMed:<a href="#">8144591</a>, PubMed:<a href="#">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="#">27153536</a>). May also activate the NF-kappa-B signaling cascade (PubMed:<a href="#">11116146</a>). Also directly phosphorylates other proteins like RGS16, activating its GTPase activity and probably coupling the EGF receptor signaling to the G</p>

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 CCDC88A/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)

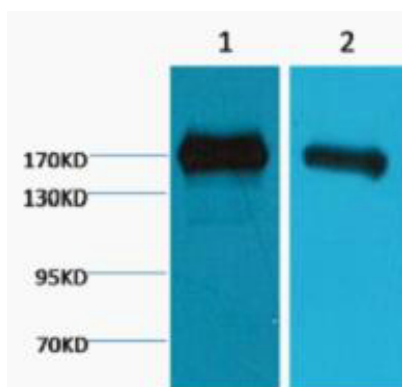
### Tissue Location

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

## Background

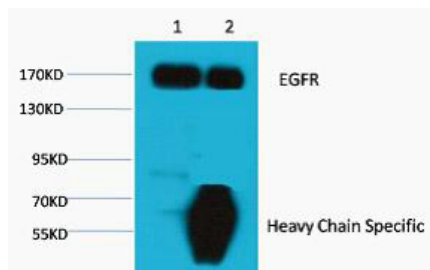
Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:[2790960](#), PubMed:[10805725](#), PubMed:[27153536](#)). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, 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).

## Images



Western blot analysis of 1) A431, 2) Hela, diluted at 1:2000.

1、 Input: Hela Cell Lysate 2、 IP product: IP dilute 1:200  
Western blot analysis: primary antibody : 1:1,000  
Secondary antibody: Goat anti-Mouse IgG, Heavy Chain



Specific(S003), 1:5,000

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