

EGFR

Rabbit Monoclonal antibody(Mab)
Catalog # AD80192

Product Information

Application IHC-P
Primary Accession P00533
Reactivity Human
Host Rabbit
Clonality Monoclonal
Clone Names 699B6G2
Calculated MW 134277

Additional Information

Gene ID 1956 **Gene Name** EGFR

Other Names Epidermal growth factor receptor, 2.7.10.1, Proto-oncogene c-ErbB-1,

Receptor tyrosine-protein kinase erbB-1, EGFR (HGNC:3236), ERBB, ERBB1,

HER1

Dilution IHC-P~~Ready-to-use

Storage Maintain refrigerated at 2-8°C.

Precautions EGFR Antibody is for research use only and not for use in diagnostic or

therapeutic procedures.

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: 35538033). Known ligands include EGF, TGFA/TGF- alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding

EGF (PubMed: 12297049, PubMed: 15611079, PubMed: 17909029,

PubMed: 20837704, PubMed: 27153536, PubMed: 2790960, PubMed: 7679104, PubMed: 8144591, PubMed: 9419975). Ligand binding triggers receptor homoand/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). 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).

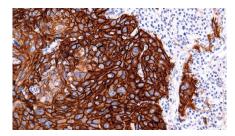
Cellular Location

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.

Images



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