

# Phospho-EGFR (Tyr1068) Rabbit mAb

Catalog # AP75378

## **Product Information**

**Application** WB, IHC-P, IHC-F, IF, ICC

P00533 **Primary Accession** Reactivity Human Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 134277

## **Additional Information**

Gene ID 1956

**Other Names EGFR** 

**Dilution** WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IF~~1:50~200 ICC~~N/A

**Format** 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

# **Protein Information**

Name EGFR ( <u>HGNC:3236</u>)

**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).

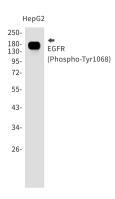
#### **Cellular Location**

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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