

Phospho-EGFR(Y1125) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3376a

Specification

Phospho-EGFR(Y1125) Antibody - Product Information

Application	DB,E
Primary Accession	P00533
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

Phospho-EGFR(Y1125) Antibody - Additional Information

Gene ID 1956

Other Names

Epidermal growth factor receptor,
Proto-oncogene c-ErbB-1, Receptor
tyrosine-protein kinase erbB-1, EGFR, ERBB,
ERBB1, HER1

Target/Specificity

This EGFR Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding Y1125 of human EGFR.

Dilution

DB~~1:500

Format

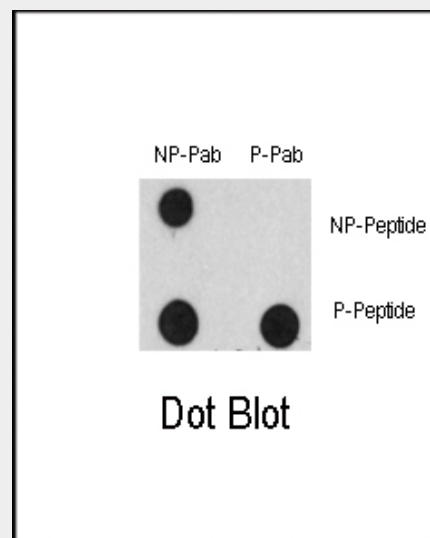
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Phospho-EGFR(Y1125) Antibody is for research use only and not for use in



Dot blot analysis of Phospho-EGFR-Y1125 Antibody (Cat. #AP3376a) and EGFR Non Phospho-specific Pab on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-EGFR(Y1125) Antibody - Background

EGFR is a transmembrane glycoprotein that is a member of a family of protein tyrosine kinases crucial in maintaining a normal balance in cell growth and development. A prototype member of the type 1 receptor tyrosine kinases, EGFR is encoded by the cellular oncogene *cerbB1*. EGFR has an extracellular ligand binding domain, a single transmembrane region, and cytoplasmic domain which is composed of a tyrosine kinase domain and a carboxy terminal domain. The carboxy terminal domain contains at least four tyrosine autophosphorylation sites. Increased production or activation of EGFR has been associated with poor prognosis in a variety of tumors. EGFR overexpression is observed in tumors of the head and neck, brain, bladder,

diagnostic or therapeutic procedures.

Phospho-EGFR(Y1125) 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:<<http://www.uniprot.org/citations/2790960>>2790960, PubMed:<<http://www.uniprot.org/citations/10805725>>10805725, PubMed:<<http://www.uniprot.org/citations/27153536>>27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:<<http://www.uniprot.org/citations/2790960>>2790960, PubMed:<<http://www.uniprot.org/citations/7679104>>7679104, PubMed:<<http://www.uniprot.org/citations/8144591>>8144591, PubMed:<<http://www.uniprot.org/citations/9419975>>9419975, PubMed:<<http://www.uniprot.org/citations/15611079>>15611079, PubMed:<<http://www.uniprot.org/citations/12297049>>12297049, PubMed:<<http://www.uniprot.org/citations/27153536>>27153536, PubMed:<<http://www.uniprot.org/citations/20837704>>20837704, PubMed:<<http://www.uniprot.org/citations/17909029>>17909029). Ligand binding triggers receptor homo- and/or heterodimerization and autophosphorylation on key cytoplasmic

stomach, breast, lung, endometrium, cervix, vulva, ovary, esophagus, stomach and in squamous cell carcinoma.

Phospho-EGFR(Y1125) Antibody - References

Aifa, S., et al., Exp. Cell Res. 302(1):108-114 (2005). Adams, T.E., et al., Growth Factors 22(2):89-95 (2004). Ichinose, J., et al., Biochem. Biophys. Res. Commun. 324(3):1143-1149 (2004). Kuribayashi, A., et al., Endocrinology 145(11):4976-4984 (2004). Kapoor, G.S., et al., Mol. Cell. Biol. 24(2):823-836 (2004).

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).

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 membrane. Nucleus. Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER (PubMed:20674546, PubMed:17909029). Endocytosed upon activation by ligand (PubMed:2790960, PubMed:17182860, PubMed:27153536, PubMed:17909029). 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.

Phospho-EGFR(Y1125) 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](#)

Phospho-EGFR(Y1125) Antibody - Citations

- [Nanoformulated paclitaxel and AZD9291 synergistically eradicate non-small-cell lung cancers in vivo.](#)
- [Identification of mutant K-Ras-dependent phenotypes using a panel of isogenic cell lines.](#)