

## EGFR-S1026 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP5436a

## **Specification**

# EGFR-S1026 Antibody (C-term) - Product Information

Application WB, FC, IHC-P,E

Primary Accession P00533

Other Accession <u>NP\_958440.1</u>, <u>NP\_005219.2</u>

Reactivity
Host
Clonality
Polyclonal
Isotype
Calculated MW
Antigen Region
Human
Rabbit
Polyclonal
Rabbit IgG
134277
1004-1033

## EGFR-S1026 Antibody (C-term) - 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-S1026 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1004-1033 amino acids from the C-terminal region of human EGFR-S1026.

## **Dilution**

WB~~1:1000 FC~~1:10~50 IHC-P~~1:50~100

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**

EGFR-S1026 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### EGFR-S1026 Antibody (C-term) - 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 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). 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.

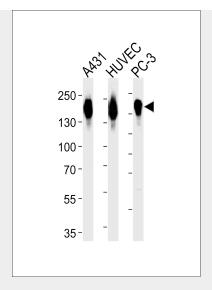
### EGFR-S1026 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

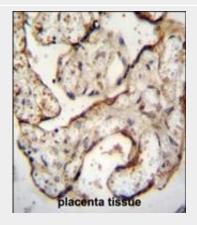
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# EGFR-S1026 Antibody (C-term) - Images

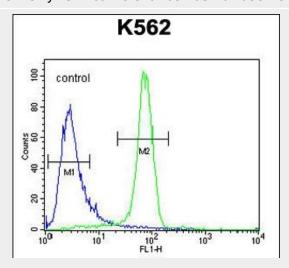




Western blot analysis of lysates from A431, HUVEC, PC-3 cell line (from left to right), using EGFR Antibody (pS1026)(Cat. #AP5436a). AP5436a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



EGFR-S1026 Antibody (C-term) (Cat. #AP5436a) immunohistochemistry analysis in formalin fixed and paraffin embedded human placenta tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the EGFR-S1026 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



EGFR-S1026 Antibody (C-term) (Cat. #AP5436a) flow cytometric analysis of K562 cells (right



histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

# EGFR-S1026 Antibody (C-term) - Background

The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces receptor dimerization and tyrosine autophosphorylation and leads to cell proliferation. Mutations in this gene are associated with lung cancer.

## EGFR-S1026 Antibody (C-term) - References

Perez, C.A., et al. J. Urol. 183(5):2062-2069(2010)
Koumakpayi, I.H., et al. Br. J. Cancer 102(7):1163-1173(2010)
Cortot, A.B., et al. Cancer (2010) In press:
Lee, Y.J., et al. J. Cancer Res. Clin. Oncol. (2010) In press:
Kawahara, A., et al. Hum. Pathol. (2010) In press:
Wu, S.L., et al. Mol. Cell Proteomics 5(9):1610-1627(2006)
Wu, S.L., et al. J. Proteome Res. 4(4):1155-1170(2005)
Abe, Y., et al. J. Biol. Chem. 273(18):11150-11157(1998)
Li, W., et al. Mol. Cell. Biol. 12(12):5824-5833(1992)
Krieg, J., et al. J. Biol. Chem. 267(27):19258-19265(1992)
Lowenstein, E.J., et al. Cell 70(3):431-442(1992)
Chi, D.D., et al. Hum. Mol. Genet. 1 (2), 135 (1992):
Countaway, J.L., et al. J. Biol. Chem. 267(2):1129-1140(1992)