

# EGFR-S1026 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP5436a

## Product Information

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<b>Application</b>	IHC-P, FC, WB, E
<b>Primary Accession</b>	<a href="#">P00533</a>
<b>Other Accession</b>	<a href="#">NP_958440.1</a> , <a href="#">NP_005219.2</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB26905
<b>Calculated MW</b>	134277
<b>Antigen Region</b>	1004-1033

## Additional Information

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<b>Gene ID</b>	1956
<b>Other Names</b>	Epidermal growth factor receptor, Proto-oncogene c-ErbB-1, Receptor tyrosine-protein kinase erbB-1, EGFR, ERBB, ERBB1, HER1
<b>Target/Specificity</b>	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.
<b>Dilution</b>	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	EGFR-S1026 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	EGFR ( <a href="#">HGNC:3236</a> )
<b>Synonyms</b>	ERBB, ERBB1, HER1

<b>Function</b>	<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 protein-coupled receptor signaling (PubMed:<a href="#">11602604</a>). Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin (PubMed:<a href="#">11483589</a>). 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:<a href="#">20462955</a>). Plays a role in enhancing learning and memory performance (By similarity). Plays a role in mammalian pain signaling (long-lasting hypersensitivity) (By similarity).</p>
<b>Cellular Location</b>	<p>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)</p>
<b>Tissue Location</b>	<p>Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.</p>

## Background

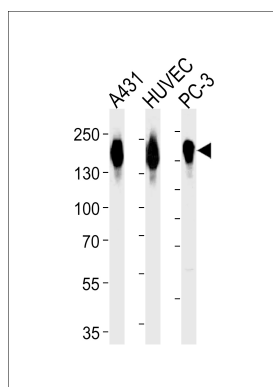
The protein encoded by this gene is a transmembrane glycoprotein that is a member of the protein kinase superfamily. This protein is a receptor for members of the epidermal growth factor family. EGFR is a cell surface protein that binds to epidermal growth factor. Binding of the protein to a ligand induces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

## References

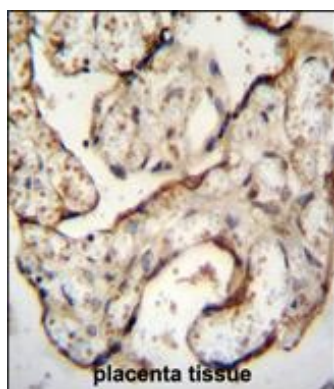
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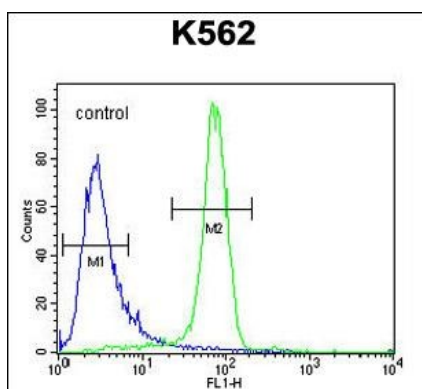
## Images



Western blot analysis of lysates from A431, HUVEC, PC-3 cell line (from left to right), using EGFR Antibody (S1026)(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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.