

# EGFR Antibody (Y1092)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5174

## Product Information

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<b>Application</b>	IHC-P, WB
<b>Primary Accession</b>	<a href="#">P00533</a>
<b>Reactivity</b>	Human
<b>Predicted</b>	Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	134277
<b>Isotype</b>	Rabbit IgG
<b>Antigen Source</b>	HUMAN

## Additional Information

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<b>Gene ID</b>	1956
<b>Antigen Region</b>	1070-1099
<b>Other Names</b>	EGFR; ERBB; ERBB1; HER1; Epidermal growth factor receptor; Proto-oncogene c-ErbB-1; Receptor tyrosine-protein kinase erbB-1
<b>Dilution</b>	IHC-P~~1:100~500 WB~~1:1000
<b>Target/Specificity</b>	This EGFR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1070-1099 amino acids from human EGFR.
<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 Antibody (Y1092) 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>

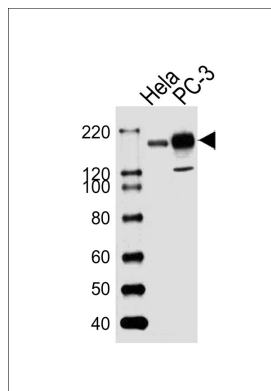
## Background

The epidermal growth factor receptor is the cell-surface receptor for members of the epidermal growth factor family (EGF-family) of extracellular protein ligands. The epidermal growth factor receptor is a member of the ErbB family of receptors, a subfamily of four closely related receptor tyrosine kinases: EGFR (ErbB-1), HER2/c-neu (ErbB-2), Her 3 (ErbB-3) and Her 4 (ErbB-4). Mutations affecting EGFR expression or activity could result in cancer.

## References

Zanardi, T.A., et al., J. Virol. 77(21):11685-11696 (2003).  
 Krug, A.W., et al., J. Biol. Chem. 278(44):43060-43066 (2003).  
 Huang, F., et al., J. Biol. Chem. 278(44):43411-43417 (2003).  
 He, Y.Y., et al., J. Biol. Chem. 278(43):42457-42465 (2003).  
 Hirsch, F.R., et al., J. Clin. Oncol. 21(20):3798-3807 (2003).

## Images



Western blot analysis of lysates from HeLa,PC-3 cell line (from left to right), using EGFR Antibody (Y1092)(Cat. #AW5174). AW5174 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

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