

## Product datasheet for **TA384140S**

### EGFR Rabbit Monoclonal Antibody [Clone ID: R01-2D3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	R01-2D3
Applications:	IF, IHC, IP, WB
Recommended Dilution:	WB: 1/1000-1/5000 IHC: 1/20-1/100 ICC/IF: 1/50-1/100 IP: 1/20
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human EGFR
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 134 kDa; Observed MW: 175 kDa
Gene Name:	epidermal growth factor receptor
Database Link:	<a href="#">Entrez Gene 1956 Human P00533</a>



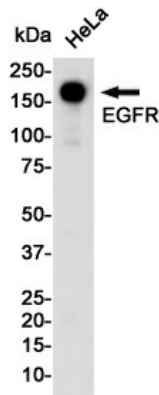
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**Background:**

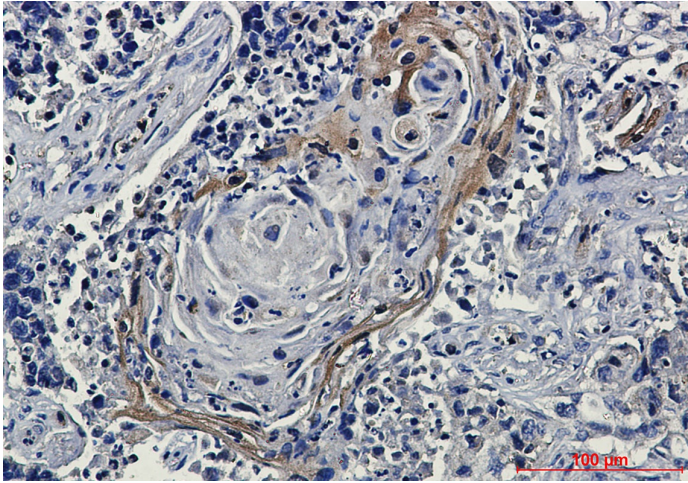
Swiss-Prot Acc.P00533.Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses (PubMed:2790960, PubMed:10805725, PubMed:27153536). Known ligands include EGF, TGFA/TGF-alpha, AREG, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF (PubMed:2790960, PubMed:7679104, PubMed:8144591, PubMed:9419975, PubMed:15611079, PubMed:12297049, PubMed:27153536, PubMed:20837704). 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). Plays a role in enhancing learning and memory performance .

**Synonyms:**

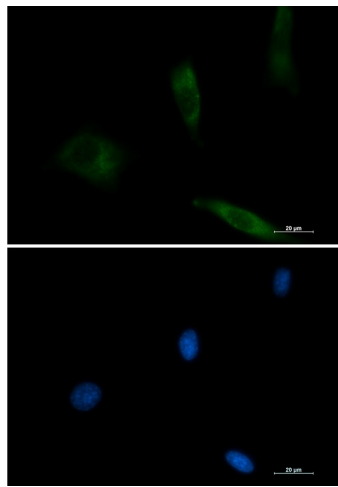
ERBB; ERBB1; HER1; mENA; PIG61

**Product images:**

Western blot analysis of EGFR in HeLa lysates using EGFR antibody.



Immunohistochemistry analysis of paraffin-embedded Human lung cancer tissue using EGFR antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunocytochemistry analysis of EGFR (green) in 3T3 using EGFR antibody, and DAPI (blue).