



## Rabbit Anti-EGFRvIII antibody

SL2558R

<b>Product Name:</b>	EGFRvIII
<b>Chinese Name:</b>	表皮生长因子受体III型突变体抗体
<b>Alias:</b>	GFRvIII; Epidermal growth factor receptor variant type III; epidermal growth factor receptor isoform a variant.
<b>文献引用</b> :	<b>Specific References(6)</b>  SL2558R has been referenced in 6 publications. <b>[IF=0.10]</b> Wang, Jiansheng. "Clinical significance of EGFR and EGFRvIII expression in human esophageal carcinoma." Pakistan Journal of Medical Sciences 27.3 (2011). <b>IHC-P;Human.</b> <a href="#">PubMed:N/A</a>
	<b>[IF=3.25]</b> Wehrenberg-Klee, Eric, et al. "PET imaging of glioblastoma multiforme EGFR expression for therapeutic decision guidance." Am J Nucl Med Mol Imaging 5.4 (2015): 379-389. <b>IHC-F;Mouse.</b> <a href="#">PubMed:26269775</a>
	<b>[IF=5.62]</b> Wei, Jian-wei, et al. "F25P preproinsulin abrogates the secretion of pro-growth factors from EGFRvIII cells and suppresses tumor growth in an EGFRvIII/wt heterogenic model." Cancer Letters (2016). <b>WB, IF(ICC);Mouse.</b> <a href="#">PubMed:27317648</a>
	<b>[IF=5.68]</b> Agnes, Richard S., et al. "An optical probe for noninvasive molecular imaging of orthotopic brain tumors overexpressing epidermal growth factor receptor." Molecular cancer therapeutics 11.10 (2012): 2202-2211. <b>WB;Human.</b> <a href="#">PubMed:22807580</a>
	<b>[IF=0.00]</b> Basilion, James, and Richard Agnes. "Targeted non-invasive imaging probes

	<p>of egfr expressing cells." U.S. Patent Application No. 13/671,957.<b>WB;Human.</b></p> <p style="text-align: center;"><a href="#">PubMed:1111</a></p> <p><b>[IF=5.99]</b>Kang, Chun-Sheng, et al. "EGFL7 is an intercellular EGFR signal messenger that plays an oncogenic role in glioma." Cancer Letters (2016).<b>IHC-P;Human.</b></p> <p style="text-align: center;"><a href="#">PubMed:27725228</a></p>
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,
<b>Applications:</b>	<p>WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=3µg/TestIF=1:100-500 (Paraffin sections need antigen repair)</p> <p>not yet tested in other applications.</p> <p>optimal dilutions/concentrations should be determined by the end user.</p>
<b>Molecular weight:</b>	100/130kDa
<b>Cellular localization:</b>	The cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human EGFRvIII:11-120/1081
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	<p>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. Multiple alternatively spliced transcript variants that encode different protein isoforms have been found for this gene. [provided by RefSeq, Jul 2010]</p> <p><b>Function:</b></p> <p>Receptor tyrosine kinase binding ligands of the EGF family and activating several signaling cascades to convert extracellular cues into appropriate cellular responses. Known ligands include EGF, TGFA/TGF-alpha, amphiregulin, epigen/EPGN, BTC/betacellulin, epiregulin/EREG and HBEGF/heparin-binding EGF. 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. May also activate the NF-kappa-B</p>

signaling cascade. 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. Also phosphorylates MUC1 and increases its interaction with SRC and CTNNB1/beta-catenin.

Isoform 2 may act as an antagonist of EGF action.

**Subunit:**

Binding of the ligand triggers homo- and/or heterodimerization of the receptor triggering its autophosphorylation. Heterodimer with ERBB2. Interacts with ERRFI1; inhibits dimerization of the kinase domain and autophosphorylation. Part of a complex with ERBB2 and either PIK3C2A or PIK3C2B. Interacts with GRB2; an adapter protein coupling the receptor to downstream signaling pathways. Interacts with GAB2; involved in signaling downstream of EGFR. Interacts with STAT3; mediates EGFR downstream signaling in cell proliferation. Interacts with RIPK1; involved in NF-kappa-B activation. Interacts (autophosphorylated) with CBL; involved in EGFR ubiquitination and regulation. Interacts with SOCS5; regulates EGFR degradation through TCEB1- and TCEB2-mediated ubiquitination and proteasomal degradation. Interacts with PRMT5; methylates EGFR and enhances interaction with PTPN6. Interacts (phosphorylated) with PTPN6; inhibits EGFR-dependent activation of MAPK/ERK. Interacts with COPG; essential for regulation of EGF-dependent nuclear transport of EGFR by retrograde trafficking from the Golgi to the ER. Interacts with TNK2; this interaction is dependent on EGF stimulation and kinase activity of EGFR. Interacts with PCNA; positively regulates PCNA. Interacts with PELP1. Interacts with MUC1. Interacts with AP2M1. Interacts with FER. May interact with EPS8; mediates EPS8 phosphorylation. Interacts (via SH2 domains) with GRB2, NCK1 and NCK2.

**Subcellular 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. Note=In response to EGF, translocated from the cell membrane to the nucleus via Golgi and ER. Endocytosed upon activation by ligand. Isoform 2: Secreted.

**Tissue Specificity:**

Ubiquitously expressed. Isoform 2 is also expressed in ovarian cancers.

**Post-translational modifications:**

Phosphorylation at Ser-695 is partial and occurs only if Thr-693 is phosphorylated. Phosphorylation at Thr-678 and Thr-693 by PRKD1 inhibits EGF-induced MAPK8/JNK1 activation. Dephosphorylation by PTPRJ prevents endocytosis and stabilizes the receptor at the plasma membrane. Autophosphorylation at Tyr-1197 is stimulated by methylation at Arg-1199 and enhances interaction with PTPN6. Autophosphorylation at Tyr-1092 and/or Tyr-1110 recruits STAT3. Monoubiquitinated and polyubiquitinated upon EGF stimulation; which does not affect tyrosine kinase activity or signaling capacity but may play a role in lysosomal targeting.

Polyubiquitin linkage is mainly through 'Lys-63', but linkage through 'Lys-48', 'Lys-11' and 'Lys-29' also occur.

Methylated. Methylation at Arg-1199 by PRMT5 positively stimulates phosphorylation at Tyr-1197.

**DISEASE:**

Defects in EGFR are associated with lung cancer (LNCR) [MIM:211980]. LNCR is a common malignancy affecting tissues of the lung. The most common form of lung cancer is non-small cell lung cancer (NSCLC) that can be divided into 3 major histologic subtypes: squamous cell carcinoma, adenocarcinoma, and large cell lung cancer. NSCLC is often diagnosed at an advanced stage and has a poor prognosis.

**Similarity:**

Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.

Contains 1 protein kinase domain.

**SWISS:**

P00533

**Gene ID:**

1956

**Database links:**

[Entrez Gene: 407217](#)Cow

[Entrez Gene: 1956](#)Human

[Entrez Gene: 13649](#)Mouse

[Entrez Gene: 24329](#)Rat

[Omim: 131550](#)Human

[SwissProt: P00533](#)Human

[SwissProt: Q01279](#)Mouse

[Unigene: 488293](#)Human

[Unigene: 420648](#)Mouse

[Unigene: 439882](#)Mouse

[Unigene: 8534](#)Mouse

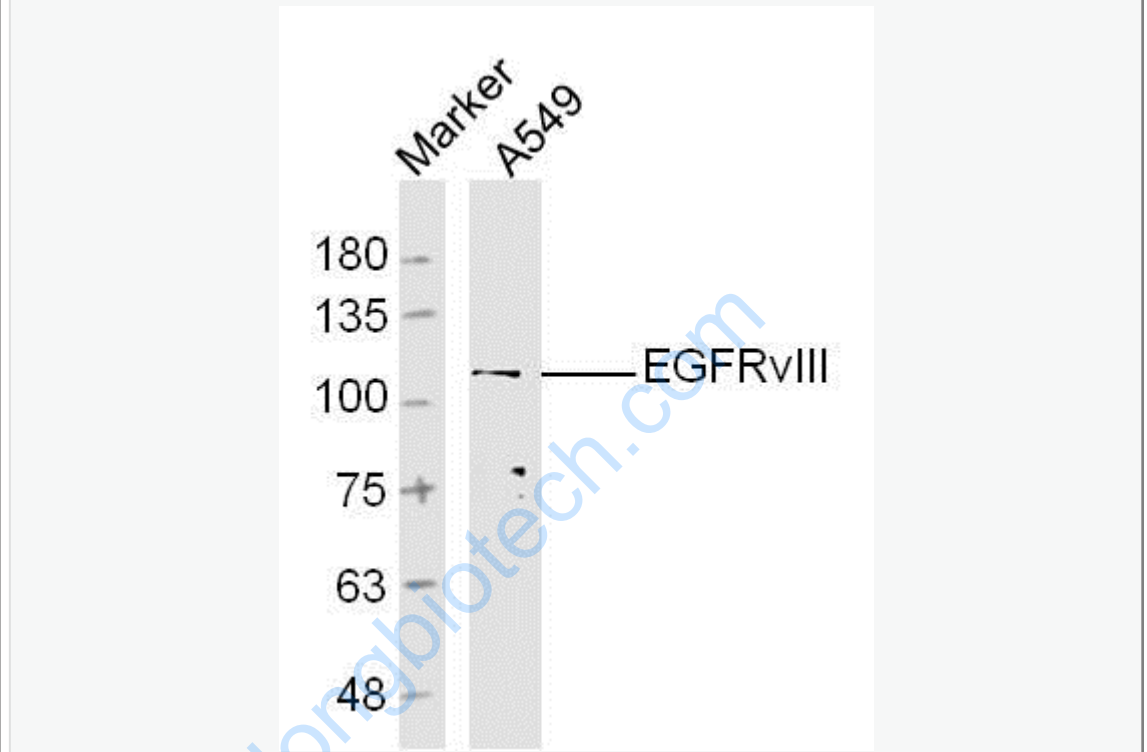
[Unigene: 37227](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

表皮生长因子受体3型突变体抗体

Picture:

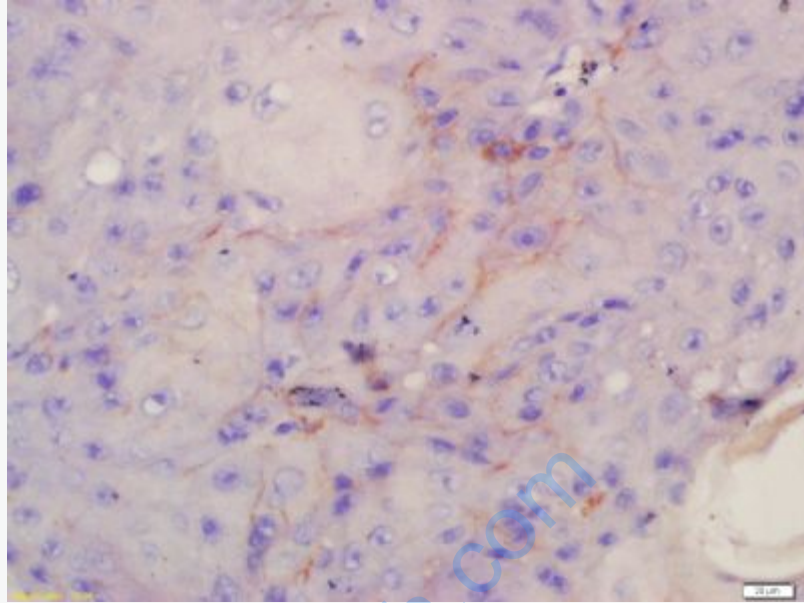


Protein: A549(human)cell lysates at 40ug;

Primary: rabbit Anti-EGFRvIII (SL2558R) at 1:300; Secondary: HRP conjugated

Goat-Anti-rabbit IgG(SL2558R) at 1: 5000; Predicted band size:100/130 kD

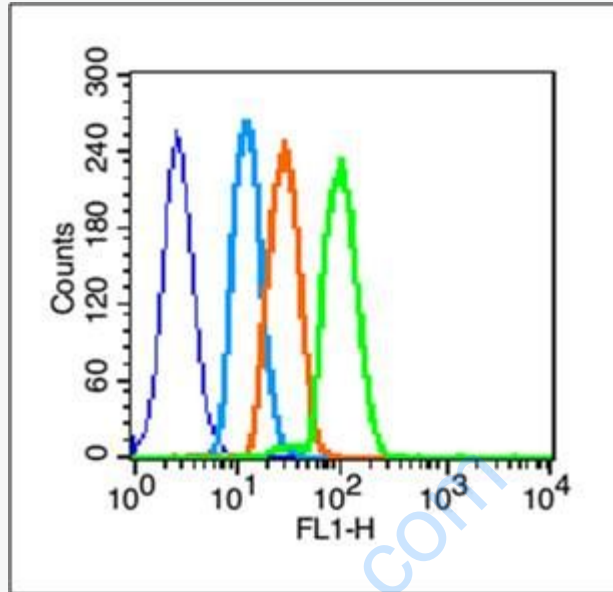
Observed band size:115 kD



Tissue/cell: human laryngocarcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-EGFRvIII Polyclonal Antibody, Unconjugated(SL2558R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): A431 (fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody (green line): Rabbit Anti-EGFRvIII antibody (SL2558R),  
dilution: 3 $\mu$ g /10<sup>6</sup> cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC,Dilution: 1 $\mu$ g  
/test.