

Rabbit Anti-EphB2/PE Conjugated antibody

SL0996R-PE

Product Name	Anti-EphB2/PE
Chinese Name	PE 标记的酪氨酸蛋白激酶受体 B2 抗体
Alias	Tyrosine-protein kinase receptor EPH-3; Developmentally regulated EPH related tyrosine kinase; ELK related protein tyrosine kinase; EPH tyrosine kinase 3; Ephrin type B receptor 2; Receptor protein-tyrosine kinase HEK5; Tyrosine protein kinase receptor QEK 5; Tyrosine-protein kinase TYRO5; Renal carcinoma antigen NY-REN-47; EPHB2; EPH receptor B2; EPHT3; HEK5; TYRO5; Cek5; Drt; Nuk; ETECK; Qek5; Sek3; ERK; Tyro5; Prkm5; EK5; Eph receptor B2; EPH-like kinase 5; EPHB2; EPHB2_HUMAN; Ephrin type-B receptor 2; hEK5; Nuk; Prkm 5; Sek 3; Tyro 5; Tyrosine protein kinase receptor CEK 5; Tyrosine protein kinase receptor EPH 3; Tyrosine-protein kinase receptor EPH-3.
Research Area	Tumour Cell biology immunology Signal transduction transcriptional regulatory factor Kinases and Phosphatases The cell membrane 受体
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human Mouse Rat(predicted:Chicken Dog Cow) Flow-Cyt=1:50-200 IF=1:50-200
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	108kDa
Cellular localization	The cell membrane
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Eph receptor B2
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	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 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

background:

This gene encodes a member of the Eph receptor family of receptor tyrosine kinase transmembrane glycoproteins. These receptors are composed of an N-terminal glycosylated ligand-binding domain, a transmembrane region and an intracellular kinase domain. They bind ligands called ephrins and are involved in diverse cellular processes including motility, division, and differentiation. A distinguishing characteristic of Eph-ephrin signaling is that both receptors and ligands are competent to transduce a signaling cascade, resulting in bidirectional signaling. This protein belongs to a subgroup of the Eph receptors called EphB. Proteins of this subgroup are distinguished from other members of the family by sequence homology and preferential binding affinity for membrane-bound ephrin-B ligands. Allelic variants are associated with prostate and brain cancer susceptibility. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2015]

Function:

Receptor for members of the ephrin-B family. Phosphorylates ARHGEF15, leading to its ubiquitination and degradation by the proteasome which promotes EFN1-dependent synapse formation. Can function in aspects of retinal ganglion cell axon guidance to the optic disk even when lacking its tyrosine kinase domain. Acts as a tumor suppressor.

Product Detail

Subunit:

Heterotetramer upon binding of the ligand. The heterotetramer is composed of an ephrin dimer and a receptor dimer. Oligomerization is probably required to induce biological responses. Interacts (via PDZ-binding motif) with GRIP1 and PICK1 (via PDZ domain). Interacts with ARHGEF15; mediates ARHGEF15 phosphorylation, ubiquitination and degradation by the proteasome. Interacts with AQP1; involved in endolymph production in the inner ear.

Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Cell projection, axon. Cell projection, dendrite.

Tissue Specificity:

Brain, heart, lung, kidney, placenta, pancreas, liver and skeletal muscle. Preferentially expressed in fetal brain.

DISEASE:

Defects in EPHB2 may be a cause of susceptibility to prostate cancer (PC)

[MIM:176807]. It is a malignancy originating in tissues of the prostate. Most prostate cancers are adenocarcinomas that develop in the acini of the prostatic ducts. Other rare histopathologic types of prostate cancer that occur in approximately 5% of patients include small cell carcinoma, mucinous carcinoma, prostatic ductal carcinoma, transitional cell carcinoma, squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma (basaloid), signet-ring cell carcinoma and neuroendocrine carcinoma. Note=EPHB2 mutations have been found in a prostate cancer cell line derived from a brain metastasis.

Similarity:

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

Contains 2 fibronectin type-III domains.

Contains 1 protein kinase domain.

Contains 1 SAM (sterile alpha motif) domain.

Database links:

[Entrez Gene: 2048](#) Human

[Entrez Gene: 13844](#) Mouse

[Omim: 600997](#) Human

[SwissProt: P29323](#) Human

[SwissProt: P54763](#) Mouse

[Unigene: 523329](#) Human

[Unigene: 250981](#) Mouse

Important Note:

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