

Rabbit EPHB1/2 Polyclonal Antibody | anti-EPHB1/2 antibody

Phospho-EPHB1/2 (Tyr778/Tyr780) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329906	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (88%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

EPHB1/2; Polyclonal Antibody; Phospho-EPHB1/2 (Tyr778/Tyr780) Antibody; Cek 6; EK6; ELK; Elkh; Ephreceptor B1; EpHtyrosine kinase 2; EPH-like kinase 6; Ephb1; EPHB1_HUMAN; Ephrin type B receptor 1; Ephrin type-B receptor 1; EPHT2; HEK 6; HEK6; NET; Neuronally-expressed EPH-related tyrosine kinase; soluble EPHB1 variant 1; Tyrosine protein kinase receptor Eph2; Tyrosine-protein kinase receptor EPH-2; cek5; Developmentally regulated Ephrelated tyrosine kinase; DRT; EK5; ELK related protein tyrosine kinase; Ephreceptor B2; EpHtyrosine kinase 3; EPH-like kinase 5; EPHB2; EPHB2_HUMAN; Ephrin type B receptor 2; Ephrin type-B receptor 2; EPHT 3; ERK; ETECK; hEK5; Nuk; Prkm 5; Receptor protein tyrosine kinase HEK 5; Renal carcinoma antigen NY-REN-47; Sek 3; Tyro 5; Tyrosine protein kinase receptor CEK 5; Tyrosine protein kinase receptor Eph3; Tyrosine protein kinase receptor QEK 5; Tyrosine-protein kinase receptor EPH-3; Tyrosine-protein kinase TYRO5; anti-EPHB1/2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Zebrafish (88%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-EPHB1/2 (Tyr778/Tyr780) Antibody detects endogenous levels of EPHB1/2 only when phosphorylated at Tyr778/Tyr780. Tissue Specificity: Brain, heart, lung, kidney, placenta, pancreas, liver and skeletal muscle. Preferentially expressed in fetal brain.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-EPHB1/2 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human EPHB1/2 around the phosphorylation site of Tyr778/Tyr780.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Autophosphorylated; ligand binding stimulates autophosphorylation on tyrosine residues.Polyubiquitinated; ligand binding stimulates ubiquitination.Ligand binding induces cleavage by matrix metalloproteinases (MMPs) such as MMP7/MMP9, producing an EphB2/N-terminal fragment (NTF) and a C-terminal long fragment (EphB2-LF). EphB2-LF is further cleaved by MMPs, producing EphB2/CTF1 which is further cleaved by the PS1/gamma-secretase producing EphB2/CTF2.

Subunit Structure	Heterotetramer upon binding of the ligand (By similarity). The heterotetramer is composed of an ephrin dimer and a receptor dimer. Interacts (via PDZ-binding motif) with GRIP1 and PICK1 (via PDZ domain) (By similarity). Interacts with ARHGEF15; mediates ARHGEF15 phosphorylation, ubiquitination and degradation by the proteasome (By similarity). Interacts with AQP1; involved in endolymph production in the inner ear (By similarity). Interacts with SPSB1 and SPSB4. The phosphorylated form interacts with RASA1 (via SH2 domain 1) (By similarity). Interacts with EFNA5 (By similarity).
Similarity	Belongs to the protein kinase superfamily. Tyr protein kinase family. Ephrin receptor subfamily.
Subcellular Location	Cell membrane>Single-pass type I membrane protein. Cell projection>Axon. Cell projection>Dendrite.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

Staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of EPHB1/2 (Phospho-Tyr778/Tyr780) using serum treated K562 whole cell lysates.-/+ means absence or presence of N peptide/non-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-EPHB1/2 antibody	Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Functions in axon guidance during development. Involved in the guidance of commissural axons, that form a major interhemispheric connection between the 2 temporal lobes of the cerebral cortex. Also involved in guidance of contralateral inner ear efferent growth cones at the midline and of retinal ganglion cell axons to the optic disk. In addition to axon guidance, also regulates dendritic spines development and maturation and stimulates the formation of excitatory synapses. Upon activation by EFNB1, abolishes the ARHGEF15-mediated negative regulation on excitatory synapse formation. Controls other aspects of development including angiogenesis, palate development and in inner ear development through regulation of endolymph production. Forward and reverse signaling through the EFNB2/EPHB2 complex regulate movement and adhesion of cells that tubularize the urethra and septate the cloaca. May function as a tumor suppressor. May be involved in the regulation of platelet activation and blood coagulation.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4758284
NCBI GeneID	2047
NCBI Accession #	NP_004432.1
NCBI GenBank Nucleotide #	NM_004441.4
UniProt Accession #	P54762; P29323
Molecular Weight	109,885 Da
NCBI Official Full Name	ephrin type-B receptor 1
NCBI Official Synonym Full Names	EPH receptor B1
NCBI Official Symbol	EPHB1
NCBI Official Synonym Symbols	ELK; NET; Hek6; EPHT2

NCBI Protein Information	ephrin type-B receptor 1; EK6; EPH-like kinase 6; eph tyrosine kinase 2; soluble EPHB1 variant 1; tyrosine-protein kinase receptor EPH-2; neuronally-expressed EPH-related tyrosine kinase
UniProt Protein Name	Ephrin type-B receptor 1
UniProt Gene Name	EPHB1
UniProt Synonym Gene Names	ELK; EPHT2; HEK6; NET; EK6; hEK6; NET
UniProt Entry Name	EPHB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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