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Eph receptor B1 Antibody

Rabbit mAb
Catalog # AP91942

Product Information

Application	WB, IP
Primary Accession	P54762
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	ELK; NET; Hek6; EPHT2; EPHB1;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	109885

Additional Information

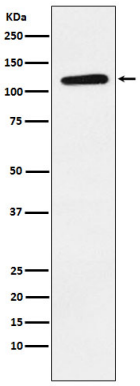
Dilution	WB 1:500~1:2000 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Eph receptor B1
Description	Receptor for members of the ephrin-B family. Binds to ephrin-B1, -B2 and -B3. Binding with the guidance cue ephrin-B2 at the optic chiasm midline redirect ventrotemporal (VT) retinal ganglion cells (RGCs) axons ipsilaterally. May be involved in cell-cell interactions in the nervous system.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	EPHB1
Synonyms	ELK, EPHT2, HEK6, NET
Function	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. Cognate/functional ephrin ligands for this receptor include EFNB1, EFNB2 and EFNB3. During nervous system development, regulates retinal axon guidance redirecting ipsilaterally ventrotemporal retinal ganglion cells axons at the optic chiasm midline. This probably requires repulsive interaction with EFNB2. In the adult nervous system together with EFNB3, regulates chemotaxis, proliferation and polarity of the hippocampus neural progenitors. In addition to its role in axon guidance also plays an important redundant role with other ephrin-B receptors in development and maturation

	of dendritic spines and synapse formation. May also regulate angiogenesis. More generally, may play a role in targeted cell migration and adhesion. Upon activation by EFNB1 and probably other ephrin-B ligands activates the MAPK/ERK and the JNK signaling cascades to regulate cell migration and adhesion respectively. Involved in the maintenance of the pool of satellite cells (muscle stem cells) by promoting their self-renewal and reducing their activation and differentiation (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein Early endosome membrane. Cell projection, dendrite {ECO:0000250|UniProtKB:Q8CBF3}
Tissue Location	Preferentially expressed in brain.

Images



Western blot analysis of Eph receptor B1 expression in U87MG cell lysate.