

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1519

Product Information

Application	WB
Primary Accession	P54762
Reactivity	Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB5335
Calculated MW	109885
Gene Name	EPHB1
Aliases	EPHB1; EPH Receptor B1; EPHT2; HEK6; Neuronally-Expressed EPH-Related Tyrosine Kinase; Tyrosine-Protein Kinase Receptor EPH-2; Ephrin Type-B Receptor 1; EPH-Like Kinase 6; EC 2.7.10.1; Hek6; ELK; NET; EK6; Eph Tyrosine Kinase 2; EPH Tyrosine Kinase 2; EC 2.7.10; EphB1
Immunogen	A synthesized peptide derived from human Eph receptor B1

Additional Information

Gene ID	2047
Other Names	Ephrin type-B receptor 1, 2.7.10.1, ELK, EPH tyrosine kinase 2, EPH-like kinase 6, EK6, hEK6, Neuronally-expressed EPH-related tyrosine kinase, NET, Tyrosine-protein kinase receptor EPH-2, EPHB1, ELK, EPHT2, HEK6, NET

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.

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