10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1519

Specification

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	P54762
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 110 kDa , observed, 120 kDa KDa**
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**

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody - 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}

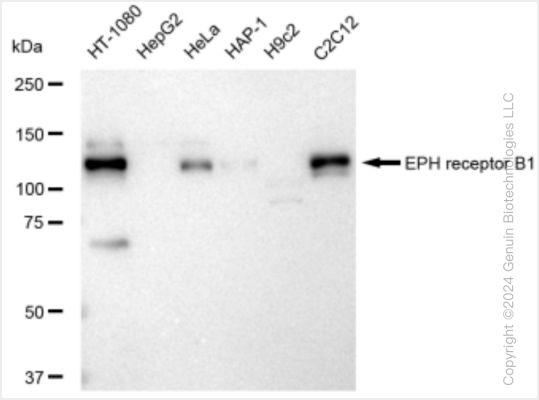
Tissue Location
Preferentially expressed in brain.

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

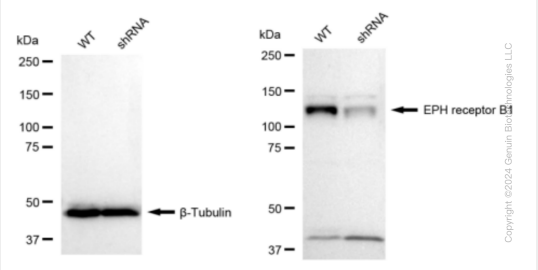
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-Eph receptor B1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-EPH receptor B1 antibody (Cat#AGI1519). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-EPH receptor B1 antibody (Cat#AGI1519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blotting analysis using anti-Eph receptor B1 antibody (Cat#AGI1519). Eph receptor B1 expression in wild type (WT) and Eph receptor B1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Eph receptor B1 antibody (Cat#AGI1519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.