

Ephb1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20899a

Specification

Ephb1 Antibody (Center) - Product Information

Application	WB,E
Primary Accession	Q8CBF3
Other Accession	P09759 , P54762
Reactivity	Mouse, Rat
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

Ephb1 Antibody (Center) - Additional Information

Gene ID 270190

Other Names

Ephrin type-B receptor 1, Ephb1

Target/Specificity

This Ephb1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 304-339 amino acids from the central region of Mouse Ephb1.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Ephb1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Ephb1 Antibody (Center) - Protein Information

Name Ephb1

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 (PubMed:[27446912](#)).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:P54762}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P54762} Early endosome membrane {ECO:0000250|UniProtKB:P54762}. Cell projection, dendrite

Tissue Location

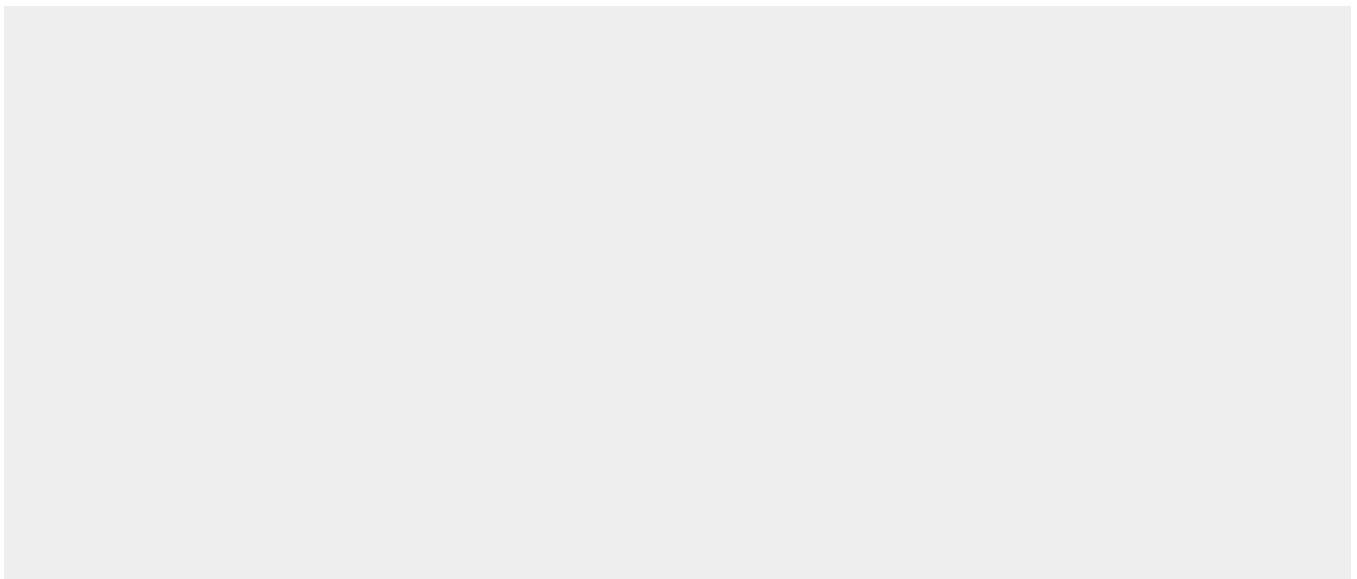
Expressed in neural stem and progenitor cells in the dentate gyrus (PubMed:18057206). Expressed in myogenic progenitor cells (PubMed:27446912).

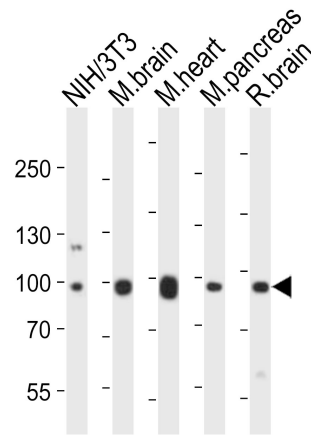
Ephb1 Antibody (Center) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Ephb1 Antibody (Center) - Images





Western blot analysis of lysates from mouse NIH/3T3 cell line, mouse brain, mouse heart, mouse pancreas, rat brain tissue lysate (from left to right), using Ephb1 Antibody (Center) (Cat. #AP20899a). AP20899a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Ephb1 Antibody (Center) - Background

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. Beside its role in axon guidance plays also 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.

Ephb1 Antibody (Center) - References

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- Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).
- Stein E.,et al.J. Biol. Chem. 273:1303-1308(1998).
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