

Mouse Ephb1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20994a**Specification**

Mouse Ephb1 Antibody (Center) - Product Information

| | |
|-------------------|--|
| Application | WB,E |
| Primary Accession | Q8CBF3 |
| Other Accession | P54754 , P54753 , P09759 , P54762 , Q07494 |
| Reactivity | Human, Mouse, Rat |
| Predicted | Chicken |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 109881 |

Mouse Ephb1 Antibody (Center) - Additional Information**Gene ID** 270190**Other Names**

Ephrin type-B receptor 1, Ephb1

Target/Specificity

This Mouse Ephb1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 374-409 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

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

Mouse 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).

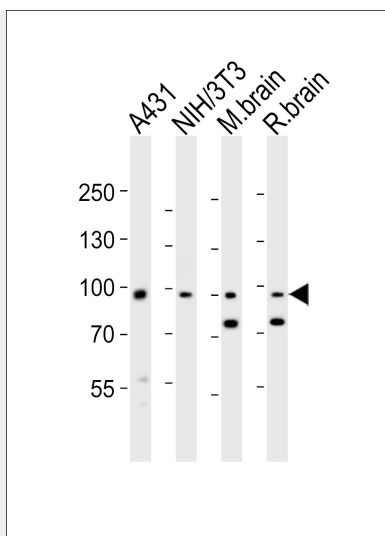
Mouse Ephb1 Antibody (Center) - Protocols

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

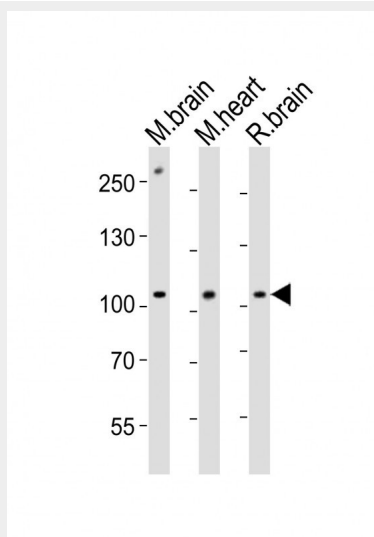
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Mouse Ephb1 Antibody (Center) - Images





Western blot analysis of lysates from A431, mouse NIH/3T3 cell line, mouse brain, rat brain tissue lysate (from left to right), using Ephb1 Antibody (Center) (Cat. #AP20994a). AP20994a 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 20 µg per lane.



All lanes : Anti-Ephb1 Antibody (Center) at 1:1000 dilution Lane 1: mouse brain lysates Lane 2: mouse heart lysates Lane 3: rat brain lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 110 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Mouse 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 EFN1 and probably other ephrin-B ligands activates the MAPK/ERK and the JNK signaling cascades to regulate cell migration and adhesion respectively.

Mouse Ephb1 Antibody (Center) - References

Carninci P., et al. Science 309:1559-1563(2005).
Church D.M., et al. PLoS Biol. 7:E1000112-E1000112(2009).
Stein E., et al. J. Biol. Chem. 273:1303-1308(1998).
Torres R., et al. Neuron 21:1453-1463(1998).
Han D.C., et al. J. Biol. Chem. 277:45655-45661(2002).