

**Mouse Ephb1 Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP20994a****Specification**

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**Mouse Ephb1 Blocking Peptide (Center) - Product Information**

Primary Accession [Q8CBF3](#)  
Other Accession [P54754](#), [P54753](#), [P09759](#), [P54762](#), [Q07494](#)

**Mouse Ephb1 Blocking Peptide (Center) - Additional Information**

**Gene ID** 270190

**Other Names**

Ephrin type-B receptor 1, Ephb1

**Target/Specificity**

The synthetic peptide sequence is selected from aa 374-389 of HUMAN Ephb1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**Mouse Ephb1 Blocking Peptide (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:<a href="http://www.uniprot.org/citations/27446912" target="\_blank">27446912</a>).

**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 Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)

**Mouse Ephb1 Blocking Peptide (Center) - Images****Mouse Ephb1 Blocking Peptide (Center) - Background**

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**Mouse Ephb1 Blocking Peptide (Center) - References**

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Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).  
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