

**SEMA4D Blocking Peptide (C-term)**

Synthetic peptide

Catalog # BP21408b

**Specification**

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**SEMA4D Blocking Peptide (C-term) - Product Information**

Primary Accession

[Q92854](#)**SEMA4D Blocking Peptide (C-term) - Additional Information**

Gene ID 10507

**Other Names**

Semaphorin-4D, A8, BB18, GR3, CD100, SEMA4D, C9orf164, CD100, SEMAJ

**Target/Specificity**

The synthetic peptide sequence is selected from aa 793-812 of HUMAN SEMA4D

**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.

**SEMA4D Blocking Peptide (C-term) - Protein Information**

Name SEMA4D

Synonyms C9orf164, CD100, SEMAJ

**Function**

Cell surface receptor for PLXNB1 and PLXNB2 that plays an important role in cell-cell signaling (PubMed:<a href="http://www.uniprot.org/citations/20877282" target="\_blank">20877282</a>). Regulates GABAergic synapse development (By similarity). Promotes the development of inhibitory synapses in a PLXNB1-dependent manner (By similarity). Modulates the complexity and arborization of developing neurites in hippocampal neurons by activating PLXNB1 and interaction with PLXNB1 mediates activation of RHOA (PubMed:<a href="http://www.uniprot.org/citations/19788569" target="\_blank">19788569</a>). Promotes the migration of cerebellar granule cells (PubMed:<a href="http://www.uniprot.org/citations/16055703" target="\_blank">16055703</a>). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:<a href="http://www.uniprot.org/citations/8876214" target="\_blank">8876214</a>). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:<a href="http://www.uniprot.org/citations/16055703" target="\_blank">16055703</a>).

href="http://www.uniprot.org/citations/16055703" target="\_blank">16055703</a>).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**Tissue Location**

Strongly expressed in skeletal muscle, peripheral blood lymphocytes, spleen, and thymus and also expressed at lower levels in testes, brain, kidney, small intestine, prostate, heart, placenta, lung and pancreas, but not in colon and liver

**SEMA4D Blocking Peptide (C-term) - Protocols**

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

- [Blocking Peptides](#)

**SEMA4D Blocking Peptide (C-term) - Images****SEMA4D Blocking Peptide (C-term) - Background**

Cell surface receptor for PLXN1B and PLXNB2 that plays an important role in cell-cell signaling. Promotes reorganization of the actin cytoskeleton and plays a role in axonal growth cone guidance in the developing central nervous system. Regulates dendrite and axon branching and morphogenesis. Promotes the migration of cerebellar granule cells and of endothelial cells. Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro). Promotes signaling via SRC and PTK2B/PYK2, which then mediates activation of phosphatidylinositol 3-kinase and of the AKT1 signaling cascade. Interaction with PLXNB1 mediates activation of RHOA.

**SEMA4D Blocking Peptide (C-term) - References**

Hall K.T.,et al.Proc. Natl. Acad. Sci. U.S.A. 93:11780-11785(1996).  
Humphray S.J.,et al.Nature 429:369-374(2004).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Tamagnone L.,et al.Cell 99:71-80(1999).  
Basile J.R.,et al.Mol. Cell. Biol. 25:6889-6898(2005).