10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

SEMA4D Blocking Peptide (C-term)

Synthetic peptide
Catalog # BP21408b

Specification

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"

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).

target="_blank">20877282). 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:19788569). Promotes the migration of cerebellar granule cells (PubMed:16055703). Plays a role in the immune system; induces B-cells to aggregate and improves their viability (in vitro) (PubMed:8876214). Induces endothelial cell migration through the activation of PTK2B/PYK2, SRC, and the phosphatidylinositol 3-kinase-AKT pathway (PubMed:16055703).

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