

SEMA4D Blocking Peptide (Center)
Synthetic peptide
Catalog # BP21409c**Specification****SEMA4D Blocking Peptide (Center) - Product Information**Primary Accession [Q92854](#)**SEMA4D Blocking Peptide (Center) - 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 553-567 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 (Center) - 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 (Center) - 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 (Center) - 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:<a href="http://
www.uniprot.org/citations/19788569"
target="_blank">19788569).
Promotes the migration of cerebellar
granule cells (PubMed:<a href="http://www
.uniprot.org/citations/16055703"
target="_blank">16055703). 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). 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/c
itations/16055703"
target="_blank">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 (Center) -
Protocols**

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

- [Blocking Peptides](#)