SEMA4A Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	SEMA4A, Blocking Peptide
Full Product Name	SEMA4A Blocking Peptide
Product Gene Name	SEMA4A blocking peptide
Product Synonym Names	CORD10; RP11 54H19 2; RP35; SEM4A_HUMAN; Sema B; Sema domain immunoglobulin domain Ig transmembrane domain TM and short cytoplasmic domain 4A; Sema domain immunoglobulin domain Ig transmembrane domain TM and short cytoplasmic domain semaphorin 4A; Sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin); Sema4a; SEMAB; Semaphorin 4A precursor; Semaphorin B; Semaphorin-4A; Semaphorin-B; SEMB
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	SEMA4A peptide (MBS9623612) is used for blocking the activity of SEMA4A antibody (MBS9604895)
Molecular Weight	83,574 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (156119735..156147542). Location: 1q22
OMIM	607292
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for SEMA4A blocking peptide	Blocking/Control
Related Product Information for SEMA4A blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of SEMA4A blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SEMA4A purchase	MBS9623612 is a blocking peptide targeting SEMA4A.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SEMA4A. It may not necessarily be applicable to this product.

NCBI GI #	300863072
NCBI GeneID	64218

NCBI Accession #	NP_001180229.1
UniProt Primary Accession #	Q9H3S1
UniProt Secondary Accession #	Q5TCI5; Q5TCJ6; Q8WUA9; B2RDH8; B3KR76
UniProt Related Accession #	Q9H3S1
GenBank Nucleotide #	NM_001193300.1
NCBI Official Full Name	semaphorin-4A isoform 1
NCBI Official Synonym Full Names	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A
NCBI Official Symbol	SEMA4A
NCBI Official Synonym Symbols	RP35; SEMB; SEMAB; CORD10; RP11-54H19.2
UniProt Protein Name	Semaphorin-4A
UniProt Synonym Protein Names	Semaphorin-B
Protein Family	Semaphorin
UniProt Gene Name	SEMA4A
UniProt Synonym Gene Names	SEMAB; SEMB; Sema B
UniProt Entry Name	SEM4A_HUMAN
NCBI Protein Information	semaphorin-4A; sema B; semaphorin-B
NCBI Summary for SEMA4A	This gene encodes a member of the semaphorin family of soluble and transmembrane proteins. Semaphorins are involved in numerous functions, including axon guidance, morphogenesis, carcinogenesis, and immunomodulation. The encoded protein is a single-pass type I membrane protein containing an immunoglobulin-like C2-type domain, a PSI domain and a sema domain. It inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. It is an activator of T-cell-mediated immunity and suppresses vascular endothelial growth factor (VEGF)-mediated endothelial cell migration and proliferation in vitro and angiogenesis in vivo. Mutations in this gene are associated with retinal degenerative diseases including retinitis pigmentosa type 35 (RP35) and cone-rod dystrophy type 10 (CORD10). Multiple alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Sep 2010]
UniProt Comments for SEMA4A	SEMA4A: a single-pass type I membrane protein that inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons. Defects in SEMA4A are the cause of retinitis pigmentosa type 35 and cone-rod dystrophy type 10. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 1q22 Cellular Component: integral to membrane; plasma membrane Molecular Function: protein binding; receptor activity Biological Process: regulation of cell shape; axon guidance; negative regulation of angiogenesis; T-helper 1 cell differentiation; angiogenesis Disease: Retinitis Pigmentosa 35; Cone-rod Dystrophy 10
Research Articles on SEMA4A	**1.** Sema4A plays an inhibitory role in T helper (Th)2-type allergic diseases, such as allergic asthma, in a fraction of Sema4a-deficient transgenic mice.
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