

Recombinant Mouse Sema4a protein, His-tagged

Cat. No. SEMA4A-14866M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Sema4a(Thr33-His682) fused with His tag at C-terminal was expressed in HEK293.
Species	Mouse
Source	HEK293
ProteinLength	Thr33-His682
Description	Semaphorin-4A (SEMA4A) belongs to the semaphorin family which contains a Ig-like C2-type domain, a PSI domain and a Sema domain. SEMA4A is expressed from day 10 in the embryo, and low levels are found between days 10-12. SEMA4A is a cell surface receptor for PLXNB1, PLXNB2, PLXNB3 and PLXND1 that plays an important role in cell-cell signaling. It plays a role in priming antigen-specific T-cells, promotes differentiation of Th1 T-helper cells, and thereby contributes to adaptive immunity. SEMA4A promotes phosphorylation of TIMD2, inhibits angiogenesis, and promotes axon growth cone collapse, Inhibits axonal extension by providing local signals to specify territories inaccessible for growing axons.
Form	Lyophilized from a 0.2 µm filtered solution of 20mM PB,150mM NaCl,pH7.4.
AA Sequence	TGGQGPMPRVKYHAGDGHRLSFFQKGLRDFDTLLLSDDGNTLYVGAREAVLAL NIQNPGIPRL KNMIPWPASERKKTECAFKKKSNETQCFNFIRVLVSYNATHLYACGT FAFSPACTFIELQDSLIL PILIDKVMGKGQSPFDPVHKHTAVLVDGMLYSGTMNNF LGSEPILMRTLGSQPVLKTDIFLRWL HADASFVAAIPSTQVVFYFFFEETASEFDFFEE

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LYISRVAQVCKNDVGGEKLLQKKWTTFLKAQLL CAQPGQLPFNIIRHAVLLPADSPS
 VSRIYAVFTSQWQVGGTRSSAVCAFSLTDIERVFKGKYKEL NKETSRWTTYRGSEV
 SPRPGSCSMGPSSDKALTFMKDHFLMDEHVVGTPLLVKSGVEYTRLAVES ARGLD
 GSSHVVMYLGSTGSLHKAVVPQDSSAYLVEEIQSPDSEPVRNLQLAPAQGAVFA
 GFSG GIWRVPRANCSVYESCVDCVLARDPHCAWDPE SRLCSLLSGSTKPWKQDM
 ERGNPEWVCTRGPMARSPRRQSPPQLIKEVLTVPNSILELPCPHLSALASYHWSHG
 RAKISEASATVYNGSLLLLPQDGV GGLYQCVATENGYSYPVVSYWVDSQDQPLAL
 DPELAGVPRERVQVPLTRVGGGASMAAQRSYWPH VDHHHHHHH

Endotoxin

Less than 0.1 ng/g (1 IEU/g) as determined by LAL test.

Purity

Greater than 95% as determined by reducing SDS-PAGE.

Storage

Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks.
 Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days.
 Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months.

Reconstitution

Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
 It is not recommended to reconstitute to a concentration less than 100 µg/ml.
 Dissolve the lyophilized protein in ddH₂O.
 Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Shipping

The product is shipped at ambient temperature.

GENE INFORMATION

Gene Name

Sema4a sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A [*Mus musculus*]

Official Symbol

Sema4a

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Synonyms	SEMA4A; sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4A; semaphorin-4A; sema B; semaphorin-B; semaphorin 4A; SemB; Semab; AI132332;
Gene ID	20351
mRNA Refseq	NM_001163489
Protein Refseq	NP_001156961
UniProt ID	Q62178
Chromosome Location	3; 3 F1
Pathway	Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; Axon guidance, organism-specific biosystem; Developmental Biology, organism-specific biosystem; Other semaphorin interactions, organism-specific biosystem; Semaphorin interactions, organism-specific biosystem;
Function	receptor activity;