

Active Recombinant Mouse Sema3a Protein, Fc-tagged

Cat. No. Sema3a-01M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Semaphorin 3A (Asn21-Lys747: Arg552Ala, Arg554Ala, Arg555Ala, Arg618Ala, Lys619Ala, Lys642Ala, Lys643Ala) with a mouse IgG2A (Glu98-Lys330) Fc tag was expressed in chinese hamster ovary cell line.
Species	Mouse
Source	CHO
ProteinLength	21-747 a.a.
Description	Enables chemorepellent activity; neuropilin binding activity; and semaphorin receptor binding activity. Involved in several processes, including nervous system development; positive regulation of male gonad development; and ventral trunk neural crest cell migration. Acts upstream of or within several processes, including dichotomous subdivision of terminal units involved in salivary gland branching; generation of neurons; and negative regulation of epithelial cell migration. Located in extracellular space. Is expressed in several structures, including alimentary system; central nervous system; embryo mesenchyme; metanephros; and sensory organ. Human ortholog(s) of this gene implicated in hypogonadotropic hypogonadism 16 with or without anosmia. Orthologous to human SEMA3A (semaphorin 3A).
Form	Disulfide-linked homodimer
Bio-activity	Measured by its ability to cause collapse of chick embryonic dorsal root ganglia (DRG) neuron growth cones. 20-60 ng/mL of Recombinant Mouse Semaphorin 3A Fc

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	Chimera causes > 50 % growth cone collapse in the presence 10 ng/mL Recombinant Human beta-NGF.
Molecular Mass	115-120 kDa, reducing conditions
N-terminal Sequence Analysis	Asn21
Endotoxin	< 1.0 EU/μg of the protein by the LAL method.
Purity	> 90 % by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein.
Reconstitution	Reconstitute at 100 μg/mL in PBS containing at least 0.1 % human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature.

GENE INFORMATION

Gene Name	Sema3a sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A [Mus musculus (house mouse)]
Official Symbol	Sema3a

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Synonyms	Sema3a; sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A; SemD; SEMA1; Semad; coll-1; Hsema-I; semaphorin-3A; collapsin-1; sema D; sema III; semaphorin III; semaphorin-D
Gene ID	20346
mRNA Refseq	NM_009152
Protein Refseq	NP_033178
UniProt ID	O08665

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