

Active Recombinant Human SEMA3A Protein, Met-6-His/Fc-tagged

Cat. No. SEMA3A-13H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Semaphorin 3A (Lys26-Val771) (Arg552Ala & Arg555Ala) protein with Met-6-His tag at N-terminus and Human IgG1 (Pro100-Lys330) Fc tag at N-terminal was expressed in Mouse myeloma cell line.
Species	Human
Source	NS0
ProteinLength	26-771 a.a.
Description	This gene is a member of the semaphorin family and encodes a protein with an Ig-like C2-type (immunoglobulin-like) domain, a PSI domain and a Sema domain. This secreted protein can function as either a chemorepulsive agent, inhibiting axonal outgrowth, or as a chemoattractive agent, stimulating the growth of apical dendrites. In both cases, the protein is vital for normal neuronal pattern development. Increased expression of this protein is associated with schizophrenia and is seen in a variety of human tumor cell lines. Also, aberrant release of this protein is associated with the progression of Alzheimer's disease.
Form	Disulfide-linked homodimer
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Rat Neuropilin-1 Fc Chimera is coated at 2 µg/mL, Recombinant Human Semaphorin 3A Fc Chimera binds with an ED50 = 50-300 ng/mL. Measured by its ability to cause

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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collapse of chick embryonic dorsal root ganglia (DRG) neuron growth cones. 20-60 ng/mL of Recombinant Human Semaphorin 3A Fc Chimera causes > 50 % growth cone collapse in the presence 10 ng/mL Recombinant Human beta-NGF.

Molecular Mass 120 kDa, 90 kDa and 37 kDa, reducing conditions

N-terminal Sequence Analysis Met & Ser770

Endotoxin < 0.1 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.
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.
3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

Storage Buffer Lyophilized from a 0.2 μm filtered solution in Tris, NaCl and Tween® 20.

Reconstitution Reconstitute at 250 μg/mL in sterile PBS.

Shipping The product is shipped with polar packs.

GENE INFORMATION

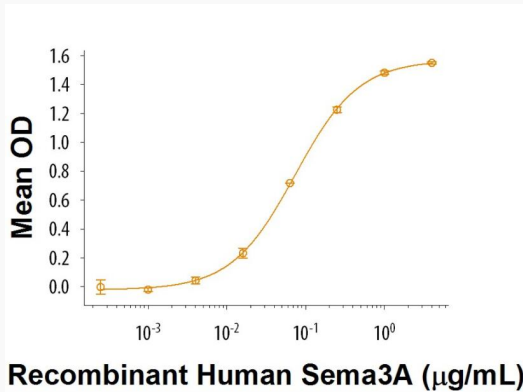
Gene Name SEMA3A semaphorin 3A [Homo sapiens (human)]

Official Symbol SEMA3A

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Synonyms	SEMA3A; semaphorin 3A; HH16; SemD; COLL1; SEMA1; SEMAD; SEMAL; coll-1; Hsema-I; SEMAIII; Hsema-III; semaphorin-3A; collapsin 1; sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A; semaphorin D; semaphorin III; semaphorin L
Gene ID	10371
mRNA Refseq	NM_006080
Protein Refseq	NP_006071
MIM	603961
UniProt ID	Q14563
Bioactivity	 Recombinant Human Semaphorin 3A Fc Chimera binds to Recombinant Rat Neuropilin-1 Fc Chimera in an ELISA Binding Assay. When Recombinant Rat Neuropilin-1 Fc Chimera is coated at 2 µg/mL, Recombinant Human Semaphorin 3A Fc Chimera binds with an ED50 = 50-300 ng/mL.