

Human SEMA3A/Semaphorin-3A Protein



Cat. No. SEM-HM13A

Description	
Source	Recombinant Human SEMA3A/Semaphorin-3A Protein is expressed from HEK293 with His tag at the N-Terminus. It contains Asn21-Val771.
Accession	Q14563
Molecular Weight	The protein has a predicted MW of 87.7 kDa. Due to furin cleavage site, the protein migrates to 60-70 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage	
Formulation	Lyophilized from 0.22µm filtered solution in PBS, 200mM L-arginine (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background	
The CRMP proteins were originally identified as mediators of Sema3A signaling and neuronal differentiation. Much has been learned about the mechanism by which CRMPs regulate cellular responses to Sema3A. The secreted protein Sema3A (collapsin-1) was the first identified vertebrate semaphorin. Sema3A acts primarily as a repulsive axon guidance cue, and can cause a dramatic collapse of the growth cone lamellipodium. Neuropilin-1 (NP1) and members of the class A plexins (PlexA) form a Sema3A receptor complex, with NP1 serving as a high-affinity ligand binding partner, and PlexA transducing the signal into the cell via its large intracellular domain.	

Assay Data

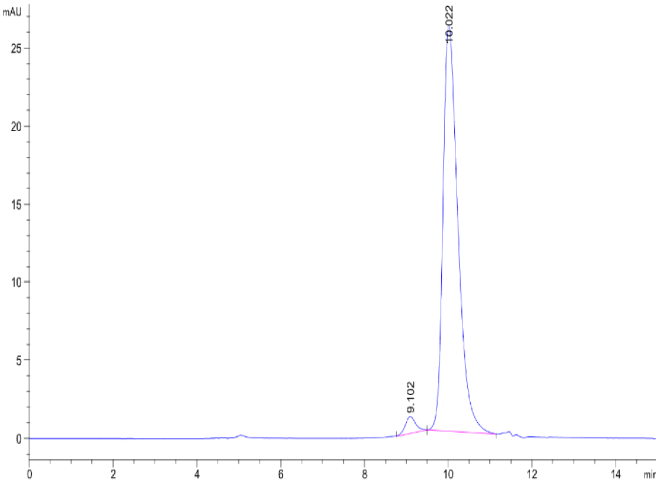
Bis-Tris PAGE



Human SEMA3A on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

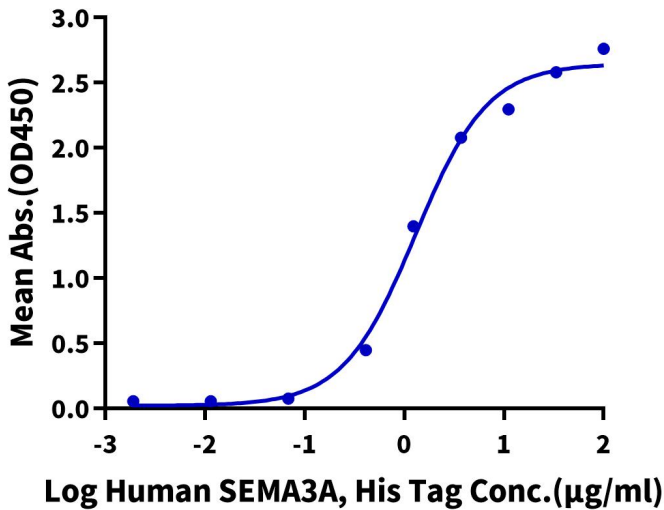
Assay Data



The purity of Human SEMA3A is greater than 95% as determined by SEC-HPLC.

ELISA Data

Human SEMA3A, His Tag ELISA
0.5µg Anti-SEMA3A Antibody, hFc Tag Per Well



Immobilized Anti-SEMA3A Antibody at 5µg/ml (100µl/well) on the plate. Dose response curve for Human SEMA3A, His Tag with the EC50 of 1.30µg/ml determined by ELISA.