

Human SEMA7A Protein



Cat. No. SEM-HM17A

Description	
Source	Recombinant Human SEMA7A Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Gln45-Ala648.
Accession	O75326-1
Molecular Weight	The protein has a predicted MW of 69.5 kDa. Due to glycosylation, the protein migrates to 70-75 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

Formulation and Storage	
Formulation	Lyophilized from 0.22µm filtered solution in PBS (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	
Semaphorin7A (Sema7A) plays an important role in the immunoregulation of the brain.Sema7A is upregulated in the epileptic brain and plays a potential role in the regulation of seizure activity in PTZ-kindled epileptic rats, which may be related to neuroinflammation. Sema7A promotes the inflammatory cytokines TNF-α and IL-6 as well as the growth of mossy fibers through the ERK pathway, suggesting that Sema7A may promote seizures by increasing neuroinflammation and activating pathological neural circuits. Sema7A plays a critical role in epilepsy and could be a potential therapeutic target for this neurological disorder.	

Assay Data

Bis-Tris PAGE



Human SEMA7A on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.