# **Product** Data Sheet



# Semaphorin-3A/SEMA3A Protein, Mouse (HEK293, Fc)

Cat. No.: HY-P74566

Synonyms: Synonyms: Semaphorin III; SEMA3A; SEMAD; Hsema-I; SEMA1; Hsema-III

Species: Source: HEK293

Accession: O08665 (K26-F546)

Gene ID: 20346

Molecular Weight: Approximately 80-95 kDa due to the glycosylation.

### **PROPERTIES**

AA Sequence	KNNVPRLKLS YKEMLESNNV ITFNGLANSS SYHTFLLDEE RSRLYVGAKD HIFSFNLVNI KDFQKIVWPV SYTRRDECKW AGKDILKECA NFIKVLEAYN QTHLYACGTG AFHPICTYIE VGHHPEDNIF KLQDSHFENG RGKSPYDPKL LTASLLIDGE LYSGTAADFM GRDFAIFRTL GHHHPIRTEQ HDSRWLNDPR FISAHLIPES DNPEDDKVYF FFRENAIDGE HSGKATHARI GQICKNDFGG HRSLVNKWTT FLKARLICSV PGPNGIDTHF DELQDVFLMN SKDPKNPIVY GVFTTSSNIF KGSAVCMYSM SDVRRVFLGP YAHRDGPNYQ WVPYQGRVPY PRPGTCPSKT FGGFDSTKDL PDDVITFARS HPAMYNPVFP INNRPIMIKT DVNYQFTQIV VDRVDAEDGQ YDVMFIGTDV GTVLKVVSVP
	KETWHDLEEI LLEEMTVFRE PTTISAMELS TKQQQLYIGS TAGVAQLPLH RCDIYGKACA ECCLARDPYC AWDGSSCSRY F
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human Neuropilin-1 at 5 $\mu$ g/mL (100 $\mu$ L/well) can bind Human Semaphorin 3A. The ED <sub>50</sub> for this effect is 41.82-166 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

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### **DESCRIPTION**

#### Background

The Semaphorin-3A/SEMA3A protein plays a crucial role in guiding growth cones. It is believed to participate in patterning sensory projections by selectively repelling axons that typically terminate dorsally. SEMA3A is also involved in the development of the olfactory system and contributes to neuronal control of puberty. Additionally, it interacts with PXND1, although the exact nature of this interaction is not specified.

Caution: Product has not been fully validated for medical applications. For research use only.

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