

## Semaphorin-3A/SEMA3A Protein, Human (HEK293, N-His)

<b>Cat. No.:</b>	HY-P700297
<b>Synonyms:</b>	Synonyms: Semaphorin III; SEMA3A; SEMAD; Hsema-I; SEMA1; SemD; Semad; coll-1 ; Hsema-III; Sema III
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q14563 (K26-F546)
<b>Gene ID:</b>	10371
<b>Molecular Weight:</b>	approximately 60.52 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> K N N V P R L K L S   Y K E M L E S N N V   I T F N G L A N S S   S Y H T F L L D E E R S R L Y V G A K D   H I F S F D L V N I   K D F Q K I V W P V   S Y T R R D E C K W A G K D I L K E C A   N F I K V L K A Y N   Q T H L Y A C G T G   A F H P I C T Y I E I G H H P E D N I F   K L E N S H F E N G   R G K S P Y D P K L   L T A S L L I D G E L Y S G T A A D F M   G R D F A I F R T L   G H H H P I R T E Q   H D S R W L N D P K F I S A H L I S E S   D N P E D D K V Y F   F F R E N A I D G E   H S G K A T H A R I G Q I C K N D F G G   H R S L V N K W T T   F L K A R L I C S V   P G P N G I D T H F D E L Q D V F L M N   F K D P K N P V V Y   G V F T T S S N I F   K G S A V C M Y S M S D V R R V F L G P   Y A H R D G P N Y Q   W V P Y Q G R V P Y   P R P G T C P S K T F G G F D S T K D L   P D D V I T F A R S   H P A M Y N P V F P   M N N R P I V I K T D V N Y Q F T Q I V   V D R V D A E D G Q   Y D V M F I G T D V   G T V L K V V S I P K E T W Y D L E E V   L L E E M T V F R E   P T A I S A M E L S   T K Q Q Q L Y I G S T A G V A Q L P L H   R C D I Y G K A C A   E C C L A R D P Y C   A W D G S A C S R Y F </pre>
<b>Biological Activity</b>	Data is not available.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/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).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

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## DESCRIPTION

### Background

The Semaphorin-3A/SEMA3A Protein plays a crucial role in the development of the olfactory system and exerts influence over neuronal control of puberty. Known for its capacity to induce the collapse and paralysis of neuronal growth cones, SEMA3A is implicated in guiding specific growth cones through a motility-inhibiting mechanism, thereby contributing to the intricacies of neuronal circuit formation. This protein serves as a ligand by binding to the complex neuropilin-1/plexin-1, underscoring its involvement in transducing signaling cues critical for neuronal guidance. Additionally, SEMA3A interacts with PLXND1, further highlighting its multifaceted role in mediating cellular interactions during the intricate processes of olfactory system development and the regulation of puberty-related neuronal functions.

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

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