

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

<b>Cat. No.:</b>	HY-P70797
<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>	70-75 kDa

### PROPERTIES

#### AA Sequence

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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

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#### Appearance

Lyophilized powder.

#### Formulation

Lyophilized from a 0.2 µm filtered solution of PBS, 5% Trehalose, pH 7.4.

#### Endotoxin Level

<1 EU/µg, determined by LAL method.

#### Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O.

#### 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.

### DESCRIPTION

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**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.

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

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