

## Plexin B1 Protein, Human (HEK293, mFc)

<b>Cat. No.:</b>	HY-P700428
<b>Synonyms:</b>	Plexin-B1; PLXNB1; Semaphorin receptor SEP; KIAA0407; PLXN5; SEP
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	O43157 (L20-Q535)
<b>Gene ID:</b>	5364
<b>Molecular Weight:</b>	83.2 kDa

### PROPERTIES

#### AA Sequence

L Q P L P P T A F T	P N G T Y L Q H L A	R D P T S G T L Y L	G A T N F L F Q L S
P G L Q L E A T V S	T G P V L D S R D C	L P P V M P D E C P	Q A Q P T N N P N Q
L L L V S P G A L V	V C G S V H Q G V C	E Q R R L G Q L E Q	L L L R P E R P G D
T Q Y V A A N D P A	V S T V G L V A Q G	L A G E P L L F V G	R G Y T S R G V G G
G I P P I T T R A L	W P P D P Q A A F S	Y E E T A K L A V G	R L S E Y S H H F V
S A F A R G A S A Y	F L F L R R D L Q A	Q S R A F R A Y V S	R V C L R D Q H Y Y
S Y V E L P L A C E	G G R Y G L I Q A A	A V A T S R E V A H	G E V L F A A F S S
A A P P T V G R P P	S A A A G A S G A S	A L C A F P L D E V	D R L A N R T R D A
C Y T R E G R A E D	G T E V A Y I E Y D	V N S D C A Q L P V	D T L D A Y P C G S
D H T P S P M A S R	V P L E A T P I L E	W P G I Q L T A V A	V T M E D G H T I A
F L G D S Q G Q L H	R V Y L G P G S D G	H P Y S T Q S I Q Q	G S A V S R D L T F
D G T F E H L Y V M	T Q S T L L K V P V	A S C A Q H L D C A	S C L A H R D P Y C
G W C V L L G R C S	R R S E C S R G Q G	P E Q W L W S F Q P	E L G C L Q

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.2 µm filtered solution of PBS, 6% 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 Plexin B1 Protein acts as a receptor for SEMA4D, playing a critical role in GABAergic synapse development and mediating SEMA4A- and SEMA4D-dependent inhibitory synapse development. Additionally, it is involved in RHOA activation and subsequent changes in the actin cytoskeleton, contributing to axon guidance, invasive growth, and cell migration. It exists as a monomer and forms heterodimers with PLXNB2 after proteolytic processing. Plexin B1 binds to activated RAC1 and interacts with various proteins, including PLXNA1, ARHGEF11, ARHGEF12, ERBB2, MET, MST1R, RRAS, RHOD, RND1, NRP1, and NRP2. The interaction with SEMA4D promotes the binding of cytoplasmic ligands, emphasizing its intricate involvement in cellular signaling pathways and synaptic development.

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

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