

PLXNA1 Protein, Human (His)

Cat. No.:	HY-P71646
Synonyms:	PLXNA1; NOV; PLXN1; Plexin-A1; Semaphorin receptor NOV
Species:	Human
Source:	E. coli
Accession:	Q9UIW2 (986L-1152L)
Gene ID:	5361
Molecular Weight:	Approximately 22.3 kDa

PROPERTIES

AA Sequence	<pre> LNAGSDVAVS VGGRPCSFSW RNSREIRCLT PPGQSPGSAP I I I N I N R A Q L T N P E V K Y N Y T E D P T I L R I D P E W S I N S G G T L L T V T G T N L A T V R E P R I R A K Y G G I E R E N G C L V Y N D T T M V C R A P S V A N P V R S P P E L G E R P D E L G F V M D N V R S L L V L N S T S F L Y Y P D P V L </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
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 ₂ 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

Background	<p>PLXNA1 protein serves as a coreceptor for SEMA3A, SEMA3C, SEMA3F, and SEMA6D, playing an essential role in signaling by class 3 semaphorins and subsequent cytoskeleton remodeling. It is integral to processes such as axon guidance, invasive growth, and cell migration. In the presence of class 3 semaphorins, PLXNA1 forms a complex with a neuropilin, and this interaction modulates the affinity of the complex for specific semaphorins. The cytoplasmic domain of PLXNA1 is crucial for activating downstream signaling events within the cytoplasm. Notably, the protein interacts directly with neuropilins NRP1 and NRP2, and it also engages with FARP2, RND1, and KDR/VEGFR2. The binding of SEMA3A to PLXNA1 leads to the dissociation of FARP2, highlighting the intricate regulatory role of PLXNA1 in semaphorin-mediated cellular responses.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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