

Neuroplastin Protein, Human (192a.a, HEK293, His)

Cat. No.:	HY-P71153
Synonyms:	Neuroplastin; Stromal Cell-Derived Receptor 1; SDR-1; NPTN; SDFR1; SDR1
Species:	Human
Source:	HEK293
Accession:	Q9Y639 (Q29-H220)
Gene ID:	27020
Molecular Weight:	Approximately 40.0 kDa

PROPERTIES

AA Sequence	<p>QNEPRIVTSE EVIIRDSPVL PVTLQCNLTS SSHTLTYSYW</p> <p>TKNGVELSAT RKNASNMEYR INKPRAEDSG EYHCVYHFVS</p> <p>APKANATIEV KAAPDITGHK RSENKNEGQD ATMYCKSVGY</p> <p>PHPDWIWRKK ENGMPMDIVN TSGRFFIINK ENYTELNI VN</p> <p>LQITEDPGEY ECNATNAIGS ASVVTVLRVR SH</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
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. 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.

DESCRIPTION

Background	<p>The Neuroplastin protein is recognized as a probable homophilic and heterophilic cell adhesion molecule, playing a crucial role in long-term potentiation at hippocampal excitatory synapses through the activation of p38MAPK. Additionally, it is implicated in the regulation of neurite outgrowth by activating the FGFR1 signaling pathway and may contribute to synaptic plasticity. Notably, Neuroplastin acts as a chaperone for ATP2B1, stabilizing ATP2B1 and enhancing its ATPase activity, thereby influencing cellular calcium homeostasis. Furthermore, Neuroplastin promotes the localization of XKR8 at the cell membrane, indicating its involvement in membrane dynamics and cellular processes. The intricate interactions of Neuroplastin with ATP2B1 and XKR8 underline its multifunctional roles in both cell adhesion and the modulation of key</p>
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cellular pathways.

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

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