

Recombinant Rat NPTN Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52428

Size: 10ug, 100ug

Protein Name: Neuropilin (Glycoprotein 55/65) (gp55/65) (Stromal cell-derived receptor 1) (SDR-1)

Synonym: Nptn, Sdfr1, Sdr1

UniProt ID: P97546

UniProt Link: www.uniprot.org/uniprotkb/P97546/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 393 AA

Molecular Weight: 44 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSGSSLP GALALSLLL VSGSLLP GPGAAQ NAGFVK SPMSET KLTGDA FELYCD VVGSPT PEIQWWY
AEVNRAESFRQLWDGARKRRVT VNTAYGSNGVSVLRITRLTLED SGTYECRASNDPKRNDLRQNP
SITWIRAQATISVLQKPRIVTSEEVIIRD SLLPVT LQCNLTSSSHTLMYSYWT KNGVELTATRKNASNM
EYRINKPRAEDSGEYHCYHFVSAPKANATIEVKAAPDITGHKRSENKNEGQDAMMYCKSVGYPHP
EWMWRKKENGVFEEISNSSGRFFIINKENYTELNIVNLQITEDPGEYECNATNSIGSASVSTVLRVRS
HLAPLWPFLGILAEIIILVVIIVVYEKRKRPD EVPDAGPMKTNSTNNHKDKNLQRNTN

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Neuropilin (Glycoprotein 55/65) (gp55/65) (Stromal cell-derived receptor 1) (SDR-1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Accessory subunit of plasma membrane calcium-transporting ATPase ATP2B2/PMCA2 that stabilizes the transporter at the cell surface (By similarity). Also acts as a chaperone for ATP2B1; stabilizes ATP2B1 and increases its ATPase activity (By similarity). Probable homophilic and heterophilic cell adhesion molecule involved in long term potentiation at hippocampal excitatory synapses through activation of p38MAPK (PubMed:10759566, PubMed:16925595). May also regulate neurite outgrowth by activating the FGFR1 signaling pathway (PubMed:10759566, PubMed:16925595). May play a role in synaptic plasticity (PubMed:10759566, PubMed:16925595). Promotes localization of XKR8 at the cell membrane (By similarity).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .; [Isoform 2]: Postsynaptic density .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.