

Recombinant Mouse PTN4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51980

Size: 10ug, 100ug

Protein Name: Tyrosine-protein phosphatase non-receptor type 4 (EC 3.1.3.48) (Testis-enriched protein tyrosine phosphatase)

Synonym: Ptpn4

UniProt ID: Q9WU22

UniProt Link: www.uniprot.org/uniprotkb/Q9WU22/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 926 AA

Molecular Weight: 106 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MTARFRLPAGRTYNVRASELARDRQHTVEVCNILLLDNTVQAFRVNKHQDQGQVLLDIVFKHLDLTER
DYFGLQLADDSTDNPRWLDPNKPPIRKQLKRGSPYNLFRVKFFVSDPNKLQEEYTRYQYFLQIKQDI
LTGRLSCPCNTAALLASFAVQSELGDYNQSENLAGYLSDFSIPNQPQDFEKEIAKLHQQHVGLSPA
EAEFNYLNAARTLELYGVEFHAYARDQSNNEILIGVMSGGILIYKNRVRMNTFLWLKIVKISFKCKQFFI
QLRKELHESRETLGFMVNYRACKTLWKACVEHHTFFRLDRPLPPQKNFFAHYFTLGSKFRYCGR
TEVQSVQYGKEKANKDRVFARSPSKPLARKLMDWEVVSRLSDDRLTQSLPSRSPPGTPNHRN
SSFTQEATRVRPSSVGHLDVHVHMSPSEDFVSQRSPSSTQANSIVLESSPSQETPEDGQPPALPP
KQSKKNSWNQIHFSNSQQDLVTHTNESFDVPSSPEKSTPNGGIPHDNLVLIKMKPDENGRFGFNVK
GGYDQKMPVIVSRVAPGTPADLCVPRLNEGDQVVLINGRDIAEHTHDQVVLFIKASCEKHSGELVLL
VRPNAVYDVVEEKLESEPDFQYIPEKAPLDSVHQDDHSLRESMIQLAEGTLTGTVLAQFDQLYRKPK
GMTMSCAKLPQNISKNRYSIDPYDATRVLLKGNEDYINANYINMEIPSSSIINQYIACQGPLPHTCKD
FWQMTWEQGSSMVMLTTQVERGRVKCHQYWPEPSESSSYGCYQVTCHSEEGNPAYIFRKMTLF
NQEKNESRQLTQIQYTAWPDHGVDPDDSSDFLDVCHVRDQRAGKEEPIIVHCSAGIGRTGVLITMET
AMCLIECNQPVYPLDIVRTMRDQRAMMIQTPSQYRFVCEAILKVYEEGFVKPLTTSSNK

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 Tyrosine-protein phosphatase non-receptor type 4 (EC 3.1.3.48) (Testis-enriched protein tyrosine phosphatase) 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: Phosphatase that plays a role in immunity, learning, synaptic plasticity or cell homeostasis (PubMed:17953619, PubMed:25825441). Regulates neuronal cell homeostasis by protecting neurons against apoptosis (By similarity). Negatively regulates TLR4-induced interferon beta production by dephosphorylating adapter TICAM2 and inhibiting subsequent TRAM-TRIF interaction (PubMed:25825441). Dephosphorylates also the immunoreceptor tyrosine-based activation motifs/ITAMs of the TCR zeta subunit and thereby negatively regulates TCR-mediated signaling pathway (PubMed:18614237). May act at junctions between the membrane and the cytoskeleton.

Subcellular Localization: Cell membrane ; Peripheral membrane protein ; Cytoplasmic side . Cytoplasm, cytoskeleton .

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.