

Recombinant Rat PTN11 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52358

Size: 10ug, 100ug

Protein Name: Tyrosine-protein phosphatase non-receptor type 11 (EC 3.1.3.48) (Protein-tyrosine phosphatase 1D) (PTP-1D) (Protein-tyrosine phosphatase SYP) (SH-PTP2) (SHP-2) (Shp2)

Synonym: Ptpn11

UniProt ID: P41499

UniProt Link: www.uniprot.org/uniprotkb/P41499/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 593 AA

Molecular Weight: 68 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MTSRRWFHPNITGVEAENLLLTRGVDGSFLARPSKSNPGDFTLSVRRNGAVTHIKIQTGDYYDLYG
GEKFATLAELVQYYMEHHGQLKEKNGDVIELKYPLNCADPTSERWFHGHLSGKEAEKLLTEKGKHG
SFLVRESQSHPGDFVLSVRTGDDKGESNDSKSKVTHVMIRCQELKYDVGGGERFDSLTDLVEHYKK
NPMVETLGTVLQKQPLNTRINAAEIESRVRELSKLAETTDKVKQGFWEFETLQQQECKLLYSRK
EGQRQENKNKNRYKNILPFDHTRVVLHDGDPNEPVSDYINANIIMPEFETKCNNSKPKKSYIATQGCL
QNTVNDFWRMVFQENSRVIVMTTKEVERGKSKCVKYWPDECALKEYGVMRVRNVRESAAHDYTLR
ELKLSKVGQGNTERTVWQYHFRTWPDHGVPSDPGGVLDLFEEVHHKQESIVDAGPVVHCSAGIG
RTGTFIVIDILIDIIREKGVDCDIDVPKTIQMVRSGMVQTEAQYRFIYMAVQHYIETLQRRIEEEQKS
KRKGHEYTNIKYSLVDQTSGDQSPLPPCTPTPPCAEMREDSARVYENVGLMQQQRFSR

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 11 (EC 3.1.3.48) (Protein-tyrosine phosphatase 1D) (PTP-1D) (Protein-tyrosine phosphatase SYP) (SH-PTP2) (SHP-2) (Shp2) 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: Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus (By similarity). Positively regulates MAPK signal transduction pathway (By similarity). Dephosphorylates GAB1, ARHGAP35 and EGFR (By similarity). Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity (By similarity). Dephosphorylates CDC73 (By similarity). Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification (By similarity). Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L (By similarity). Acts as an effector of PDCD1-mediated inhibition of T-cell response: recruited by phosphorylated PDCD1, mediating dephosphorylation of key T-cell receptor (TCR) proximal signaling molecules, leading to TCR signaling inhibition (By similarity).

Subcellular Localization: Cytoplasm .

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.