

Recombinant Mouse PTN11 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51390

Size: 10ug, 100ug

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

Synonym: Ptpn11

UniProt ID: P35235

UniProt Link: www.uniprot.org/uniprotkb/P35235/entry

Species Source: Mouse

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
SFLVRESQSHPGDFVLSVRTGDDKGESNDGKSKVTHVMIRCQELKYDVGGGERFDSLTDLVEHYKK
NPMVETLGTVLQLKQPLNTRINAAEIESRVRELSKLAETTDKVKQGFWEFETLQQQECKLLYSRK
EGQRQENKNKNRYKNILPFDHTRVVLHDGDPNEPVSDYINANIIMPEFETKCNSKPKKSYIATQGCL
QNTVNDFWRMVVFQENS RVIVMTTKEVERGKSKCVKYWPDEYALKEYGVMRVRNVKESAAHDYTLR
ELKLSKVGQGNTERTVWQYHFRTWPDHGVPSDPGGVLDLFEEVHHKQESIVDAGPVVVHCSAGIG
RTGT FIVIDILIDIIREKGVDCDIDVPKTIQMVR SQRSGMVQTEAQYRFIYMAVQHYIETLQRRIEEEQKS
KRKGHEYTNIKYSLVDQTS GDQSPLPPCTPTPPCAEMREDSARVYENVGLMQQQRSFR

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 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 (PubMed:11698646, PubMed:14967142). 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 (PubMed:29644115). 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 (PubMed:11698646).

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.