

Recombinant Human PTPRH Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50826

Size: 10ug, 100ug

Protein Name: Receptor-type tyrosine-protein phosphatase H (R-PTP-H) (EC 3.1.3.48)
(Stomach cancer-associated protein tyrosine phosphatase 1) (SAP-1) (Transmembrane-type protein-tyrosine phosphatase type H)

Synonym: PTPRH, SAP1

UniProt ID: Q9HD43

UniProt Link: www.uniprot.org/uniprotkb/Q9HD43/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1115 AA

Molecular Weight: 122 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAGAGGGLGVWGNLVLGLCSWTGARAPAPNPGRNLTVETQTTSSISLSWEVPDGLDSQNSNYW
VQCTGDGGTTETRNTTATNVTVDGLGPGSLYTCSVWVEKDGVNSSVGTVTATAPNPVRNLRVEA
QTNSSIALTWEVPDGPDPQNSTYGVEYTDGGRAGTRSTAHTNITVDGLEPGCLYAFSMWVGKNGI
NSSRETRNATTAHNPVRNLRVEAQTTSSISLSWEVPDGTDPQNSTYCVQCTGDGGRGTETRNTTDTR
VTVDGLGPGSLYTCSVWVEKDGVNSSVEIVTSATAPNPVRNLTVEAQTNSSIALTWEVPDGPDPQN
STYGVEYTDGGRAGTRSTAHTNITVDRLEPGCLYVFSVWVGKNGINSSRETRNATTAPNPVRNLH
METQTNSSIALCWEVPDGPYPQDYTYWVEYTDGGGGTETRNTTNTSVTAERLEPGTLYTFSWAE
KNGARGSRQNVSISTVPNAVTSLSKQDWTNSTIALRWTA PQGPQGSSYSYVWSVWREGMTDPRT
QSTSGTDITLKEEAGSLYHLTVWAERNEVRGYNSTLTAATAPNEVTDLQNETQTKNSVMLWWKAP
GDPHSQLYVYVWQWASKGHPRRGQDPQANWVNQTSRTNETWYKVEALEPGTLYNFTVWAERND
VASSTQSLCASTYPTVTITSCVSTSAGYGVNLIWSCPQGGYEAFELEVGGQQRGSQDRSSCGEAVS
VLGLGPARYPATITTIWDGMKVSHSVVCHTESAGVIAGAFVGILLFLILVGLLIFFLKRRNKKKQKQP
ELRDLVFSSPGDIPAEDFADHVRKNERDSNCGFADEYQQLSLVGHSQSQMVASASENNAKNRYRN
VLPYDWSRVPLKPIHEEPGSDYINASFMPGLWSPQEFIA TQGGLPQTVGDFWRLVWEQQSHTLVML
TNCMEAGRVKCEHYWPLDSQPCTHGHRLVTLVGEEVMENWTVRELLLLQVEEQKTL SVRQFHYQA
WPDHGVPPSPDTLLAFWRMLRQWLDQTMEGGPPIVHCSAGVGRTGT LIALDVLLRQLQSEGLLGPF
SFVRKMRESRPLMVQTEAQYVFLHQCILRFLQQSAQAPAEKEVPYEDVENLIYENVAAIQAHKLEV

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 Receptor-type tyrosine-protein phosphatase H (R-PTP-H) (EC 3.1.3.48) (Stomach cancer-associated protein tyrosine phosphatase 1) (SAP-1) (Transmembrane-type protein-tyrosine phosphatase type H) 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: Protein phosphatase that may contribute to contact inhibition of cell growth and motility by mediating the dephosphorylation of focal adhesion-associated substrates and thus negatively regulating integrin-promoted signaling processes. Induces apoptotic cell death by at least two distinct mechanisms: inhibition of cell survival signaling mediated by PI 3-kinase, Akt, and ILK and activation of a caspase-dependent proapoptotic pathway. Inhibits the basal activity of LCK and its activation in response to TCR stimulation and TCR-induced activation of MAP kinase and surface expression of CD69. Inhibits TCR-induced tyrosine phosphorylation of LAT and ZAP70. Inhibits both basal activity of DOK1 and its CD2-induced tyrosine phosphorylation. Induces dephosphorylation of BCAR1, focal adhesion kinase and SRC. Reduces migratory activity of activity of Jurkat cells. Reduces tyrosine phosphorylation of CEACAM20 and thereby contributes to suppress the intestinal immune response CEACAM20 (By similarity).

Subcellular Localization: Cell projection, microvillus membrane ; Single-pass type I membrane protein . Apical cell membrane ; Single-pass type I membrane protein . Cytoplasm . Note=Colocalizes with CEACAM20 at the apical brush border of intestinal cells.

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.