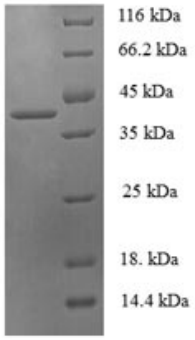
Recombinant Human 14 kDa phosphohistidine phosphatase (PHPT1)

Product Code	CSB-EP017942HU
Relevance	Exhibits phosphohistidine phosphatase activity.
Abbreviation	Recombinant Human PHPT1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q9NRX4
Alias	Phosphohistidine phosphatase 1;Protein janus-A homolog
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MAVADLALIPDVDIDSDGVFKYVLIRVHSAPRSGAPAAESKEIVRGYKWAEYHADIYDKVSGDMQKQGCDCECLGGGRISHQSQDKKIHVYGYSMAYGPAQHAISTEKIKAKYPDYEVTWANDGY
Research Area	Cell Biology
Source	E.coli
Target Names	PHPT1
Expression Region	1-125aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal GST-tagged
Mol. Weight	40.8kDa
Protein Length	Full Length
Image	 (Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

This Human PHPT1 recombinant protein was produced in E.coli, where the gene sequence encoding Human PHPT1 (1-125aa) was expressed with the N-terminal GST tag. The purity of this PHPT1 protein was greater than 90% by SDS-PAGE.
PHPT1 is an enzyme with its main function being the dephosphorylation of phosphorylated histidine residues. This enzyme catalyzes the removal of phosphate groups from histidine, thereby regulating signal transduction pathways associated with phosphorylation. Phosphorylation is a crucial cellular signaling mechanism that can regulate the activity, interactions, and processes of proteins. PHPT1, by dephosphorylating histidine residues, participates in maintaining the balance of intracellular phosphorylation, thus impacting multiple signaling pathways.
Some studies suggest that PHPT1 may be related to the development and progression of cancer. It can affect various biological processes associated with cancer, including cell apoptosis, proliferation, and invasion. Therefore, investigating the role of PHPT1 in cancer holds potential importance for understanding and treating cancer. In addition to its role in signaling, PHPT1 may also play a role in other physiological processes such as cell cytoskeleton remodeling, cell differentiation, and cell adhesion. Further research is ongoing to elucidate these functions.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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