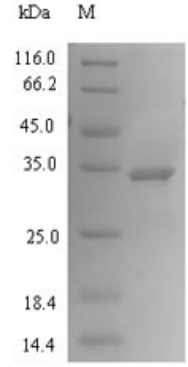
Recombinant Human Phosphoethanolamine/phosphocholine phosphatase (PHOSPHO1)

Product Code	CSB-EP819461HU
Relevance	Phosphatase that has a high activity toward phosphoethanolamine (PEA) and phosphocholine (PCho). Involved in the generation of inorganic phosphate for bone mineralization.
Abbreviation	Recombinant Human PHOSPHO1 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.	Q8TCT1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSGCFPVSGLRCLSRDGRMAAQGAPRFLLTFDFDETIVDENSDDSIVRAAPG QRLPESLRATYREGFYNEYMQRVFKYLGEQGVRPRDLSAIYEAIPLSPGMSDL LQFVAKQGACFEVILISDANTFGVESSLRAAGHHSLFRRILSNPSGPDARGLLA LRPFHTHSCARCPANMCKHKVLSDYLRERAHDGVHFERLFYVGDGANDFCP MGLLAGGDVAFPRRGYPMHRLIQEAQKAEPSSFRASVVPWETAADVRLHLQQ VLKSC
Research Area	Signal Transduction
Source	E.coli
Target Names	PHOSPHO1
Expression Region	1-267aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	33.7kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Amino acids 1-267 form the expressed segment for recombinant Human PHOSPHO1. The expected molecular weight for the PHOSPHO1 protein is calculated to be 33.7 kDa. Expression of this PHOSPHO1 protein is conducted in e.coli. Fusion of the N-terminal 6xHis tag into the PHOSPHO1 encoding gene fragment was conducted, allowing for easier detection and purification of the PHOSPHO1 protein in subsequent stages.

The human phosphoethanolamine/phosphocholine phosphatase (PHOSPHO1) primarily functions in regulating skeletal mineralization by hydrolyzing phosphocholine and phosphoethanolamine. It is involved in the initiation of hydroxyapatite crystal formation during bone development. In bone and mineralization research, studying PHOSPHO1 contributes to understanding the molecular mechanisms involved in bone mineralization and may have implications for bone-related disorders. PHOSPHO1's involvement in mineralization processes makes it relevant in dental research as well. Investigating PHOSPHO1 provides insights into skeletal biology, mineral homeostasis, and potential applications in developing therapeutic strategies for skeletal disorders, enhancing the understanding of mineralization processes in different physiological and pathological contexts.

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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