

PHOSPHO1 Protein, Human, Recombinant (His)

General Information

Synonyms:	phosphatase, orphan 1
Protein Construction:	Met1-Cys267
Species:	Human
Expression Host:	E. coli
Accession:	Q8TCT1-1
Molecular Weight:	30.67 kDa (Predicted and reducing conditions)

QC Testing

Biological Activity:	Activity testing is not tested. It is theoretically active, but we cannot guarantee it.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22 μ m filtered solution in PBS, 300mM L-Arginine (pH 7.0). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

PHOSPHO1, a phosphoethanolamine/phosphocholine phosphatase, is upregulated in mineralising cells and is thought to be involved in the generation of inorganic phosphate for bone mineralisation.

Reference

Stewart AJ, et al. (2003) Comparative modelling of human PHOSPHO1 reveals a new group of phosphatases within the haloacid dehalogenase superfamily. *Protein Eng.* 16(12): 889-95.

Camps M, et al. (2000) Dual specificity phosphatases: a gene family for control of MAP kinase function. *FASEB J.* 14(1): 6-16.

Barford D. (1996) Molecular mechanisms of the protein serine/threonine phosphatases. *Trends Biochem Sci.* 21(11): 407-12.

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