

Recombinant Human PPA1 protein (His tag)

Catalog Number:PDEH100356



Note: Centrifuge before opening to ensure complete recovery of vial contents.

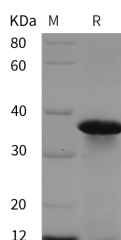
Description

Synonyms	Inorganic pyrophosphatase;PPA1;Pyrophosphate phospho-hydrolase (PPase)
Species	Human
Expression Host	E.coli
Sequence	Ser 2-Asn 289
Accession	Q15181
Calculated Molecular Weight	31.6 kDa
Observed molecular weight	36 kDa
Tag	N-His & C-His

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

PPA1 (Inorganic pyrophosphatase 1; also PPase and IOPPP) is a 32-36 kDa cytoplasmic member of the PPase family of enzymes. It is ubiquitously expressed, and acts on di- (or pyro) phosphate, generating orthophosphate in a Mg²⁺-dependent manner. This activity can both generate energy for cells, or in the case of osteoblasts, provide raw material for calcification. The consumption of pyrophosphate may also remove inhibitors of enzymes such as guanylyl cyclase, and PPA1 itself is also reported to stimulate gene expression. Human PPA1 is 289 amino acids (aa) in length. There is one pyrophosphatase domain between aa 42-255, and two utilized acetylation sites at Lys 57 and Lys228. PPA1 is known to form homodimers. There is one potential alternative start site at Met46. Full-length human PPA1 shares 94% aa sequence identity with mouse PPA1.

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