

Recombinant human Inorganic Pyrophosphatase/PPA1 protein

Catalog Number: ATGP1397

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-289aa

UniProt No.

Q15181

NCBI Accession No.

NP_066952

Alternative Names

Inorganic pyrophosphatase, IOPPP, PP, PP1, SID6-8061

PRODUCT SPECIFICATION

Molecular Weight

35.2 kDa (313aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 200mM NaCl

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PPA1 (Pyrophosphatase) belongs to the PPase family. This protein is an enzyme that catalyzes the conversion of one molecule of pyrophosphate to two phosphate ions. The hydrolysis of inorganic pyrophosphate (PPi) to two phosphate ions is utilized in many biochemical pathways to render reactions effectively irreversible. Inorganic pyrophosphatase catalyzes this hydrolysis reaction in the early steps of lipid degradation, a prominent example of this phenomenon. By promoting the rapid hydrolysis of pyrophosphate (PPi), Inorganic pyrophosphatase provides the driving force for the activation of fatty acids destined for oxidation. Recombinant human PPA1

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protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

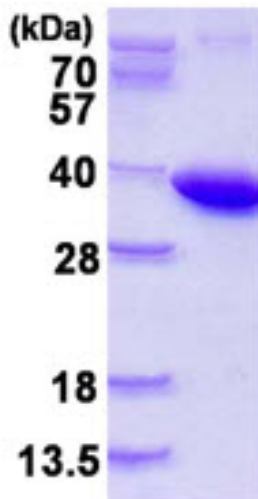
MGSSHHHHHH SGLVPRGSH MGSMSGFST EERAAPFSLE YRVFLKNEKG QYISPFHDIP IYADKDVFHM VVEVPRWSNA
KMEIATKDPL NPIKQDVKKG KLRYVANLFP YKGYIWNYGA IPQTWEDPGH NDKHTGCCGD NDPIDVCEIG SKVCARGEII
GVKVLGILAM IDEGETDWKV IAINVDDPDA ANYNDINDVK RLKPGYLEAT VDWFRRYKVP DGKPENEFAF NAEFKDKDFA
IDIIKSTHDH WKALVTKKTN GKGISCMNTT LSESPFKCDP DAARAIVDAL PPPCESACTV PTDVDKWFHH QKN

General References

Carman GM, et al. (2006) Trends Biochem. Sci. 31 (12): 694-9.
usui Y, et al. (2010) J. Dent. Res. 89 (5): 504-9.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)