

Recombinant human IMPAD1 protein

Catalog Number: ATGP2986

PRODUCT INFORMATION

Expression system

E.coli

Domain

34-359aa

UniProt No.

Q9NX62

NCBI Accession No.

NP_060283

Alternative Names

Inositol monophosphatase 3, GPAPP, IMP 3, IMP-3, IMPA3

PRODUCT SPECIFICATION

Molecular Weight

37.6 kDa (349aa) confirmed by MALDI-TOF

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 90% by SDS-PAGE

Biological Activity

Specific activity > 3300pmol/min/ug, its ability to dephosphorylate adenosine 3'5'-diphosphate sodium salt at pH 7.5, 25C.

Tag

His-Tag

Application

Enzyme Activity, 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

IMPAD1, also known as Inositol monophosphatase 3, is a member of the inositol monophosphatase family. IMPAD1 is localized to the Golgi apparatus and catalyzes the hydrolysis of phosphoadenosine phosphate (PAP) to adenosine monophosphate (AMP). Mutations in this gene are a cause of GRAPP type chondrodysplasia with joint

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dislocations, and a pseudogene of this gene is located on the long arm of chromosome 1. Recombinant human IMPAD1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by conventional chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

Amino acid Sequence

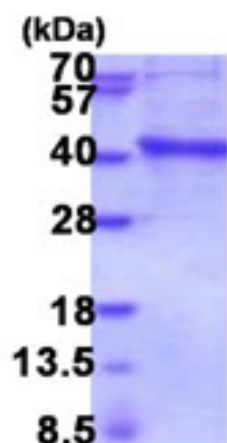
MGSSHHHHHHH SSGLVPRGSH MGSGRFSLFG LGGEPGGGAA GPAAAADGGT VDLREMLAVS VLA AVRGGDE
VRRVRESNVL HEKSKGKTRE GAEDKMTSGD VLSNRKMFYL LKTAFPSVQI NTEEHVDAAD QEVILWDHDKI PEDILKEVTT
PKEVPAESVT VWIDPLDATQ EYTEDLRKYV TTMVCVAVNG KPMLGVIHKP FSEYTAWAMV DGGSNVKARS SYNEKTPRIV
VSRSHSGMVK QVALQTFGNQ TTIIPAGGAG YKVLALLDVP DKSQEKADLY IHVTYIKKWD ICAGNAILKA LGGHMTTSLG
EEISYTGSDG IEGLLASIR MNHQALVRKL PDLEKTGHK

General References

Vissers L E., et al. (2011) Am J Hum Genet. 88:608-615.
Kalujnaia S., et al. (2010) FASEB J. 24:3981-3991.

DATA

SDS-PAGE



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

15% SDS-PAGE (3ug)