

Recombinant human IMP Dehydrogenase 1/IMPDH1 protein

Catalog Number: ATGP0586

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-514aa

UniProt No.

P20839

NCBI Accession No.

NP_001136045

Alternative Names

Inosine-5'-monophosphate dehydrogenase 1, IMPD, IMPD1, LCA11, RP10, Inosine-5'-monophosphate dehydrogenase 1 IMP dehydrogenase 1.

PRODUCT SPECIFICATION

Molecular Weight

57.5 kDa (534aa) confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol

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

Inosine-5'-monophosphate dehydrogenase 1, also known as IMPDH1 catalyzes the synthesis of xanthine monophosphate (XMP) from inosine-5'-monophosphate (IMP). Also, IMPDH1 is a ubiquitously expressed enzyme, functioning as a homotetramer, which catalyzed the rate-limiting step in de novo synthesis of guanine nucleotides. As such, it plays an important role in cyclic nucleoside metabolism within photoreceptors. Defects in the IMPDH1 gene are a cause of retinitis pigmentosa type 10. Recombinant human IMPDH1, fused to His-tag at N-

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terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

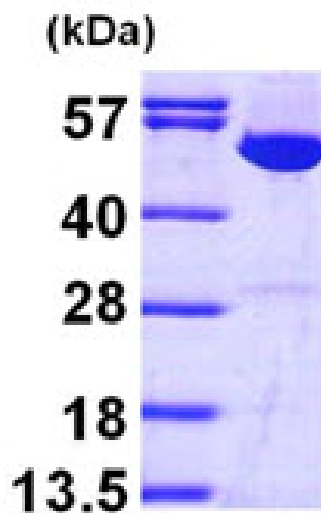
MGSSHHHHHH SSGLVPRGSH MADYLISGGT GYPEDGLTA QQLFASADGL TYNDFLILPG FIDFIADEVD LTSALTRKIT
LKTPLISSPM DTVTEADMAI AMALMGGIGF IHHNCTPEFQ ANEVRKVKKF EQGFITDPVV LPSHTVGDV LEAKMRHGFS
GIPITETGTM GSKLVGIVTS RDIDFLAEKD HTLLSEVMT PRIELVVAPA GVTLKEANEI LQRSKKGKLP IVNDCDELVA
IIARTDLKKN RDYPLASKDS QKQLLCGAAV GTREDDKYRL DLLTQAGVDV IVLDSSQGNS VYQIAMVHYI KQKYPHLQVI
GGNVVTAQA KNLIDAGVDG LRVGMGCGSI CITQEVMACG RPOGTAVYKV AEYARRFGVP IIADGGIQTV GHVVKALALG
ASTVMMGSLI AATTEAPGEY FFSDGVRLKK YRGMGSLDAM EKSSSSQKRY FSEGDKVIA QGVSGSIQDK GSIQKFVPLY
IAGIQHGCQD IGARSLSVLR SMMYSGELKF EKRTMSAQIE GGVHGLHSYE KRLY

General References

Wang J., et al. (2008) Clin Pharmacol Ther. 83(5):711-7.
Natsumeda Y., et al. (1990) J Biol Chem. 265(9):5292-5.

DATA

SDS-PAGE



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

15% SDS-PAGE (3ug)