

# Recombinant human IMP Dehydrogenase 2/IMPDH2 protein

Catalog Number: ATGP1274

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-514aa

### UniProt No.

P12268

### NCBI Accession No.

NP\_000875

### Alternative Names

Inosine-5'-monophosphate dehydrogenase 2, IMPD2, IMPDH-II

## PRODUCT SPECIFICATION

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### Molecular Weight

58kDa (534aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 150mM NaCl

### Purity

> 90% 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

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### Description

IMPDH2 belongs to the IMPDH/GMPR family. It catalyzes the NAD-dependent oxidation of inosine-5'-monophosphate into xanthine-5'-monophosphate, which is then converted into guanosine-5'-monophosphate. IMPDH2 is the rate-limiting enzyme in the de novo guanine nucleotide biosynthesis. It is thus involved in maintaining cellular guanine deoxy- and ribonucleotide pools needed for DNA and RNA synthesis. Also IMPDH1 and IMPDH2 are targets for the important immunosuppressive drug, mycophenolic acid (MPA). Recombinant human IMPDH2 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using

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conventional chromatography techniques.

## Amino acid Sequence

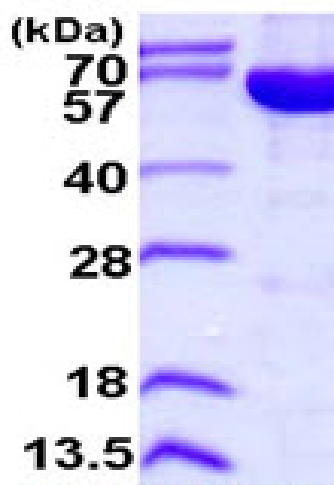
MGSSHHHHHH SGLVPRGSH MADYLISGGT SYVPDDGLTA QQLFNCGDGL TYNDFLILPG YIDFTADQVD LTSALTKKIT  
LKTPLVSSPM DTVTEAGMAI AMALTGGIGF IHHNCTPEFQ ANEVRKVKKY EQGFITDPVV LSPKDRVRDV FEAKARHGFC  
GIPITDTGRM GSRLVGISS RDIDFLKEEE HDCFLEEIMT KREDLVVAPA GITLKEANEI LQSKKKGKLP IVNEDDELVA  
IIARTDLKKN RDYPLASKDA KKQLLCGAAI GTHEDDKYRL DLLAQAGVDV VVLDSSQGNS IFQINMIKYI KDKYPNLQVI  
GGNVVTAQA KNLIDAGVDA LRVGMGSGSI CITQEVLAGC RPQATAVYKV SEYARRFGVP VIADGGIQNV GHIKALALG  
ASTVMMGSLI AATTEAPGEY FFSDGIRLKK YRGMGSLDAM DKHLSSQNRV FSEADKIKVA QGVSGAVQDK GSIHKFVPLY  
IAGIQHSCQD IGAKSLTQVR AMMYSGELKF EKRTSSAQVE GGVHSLHSYE KRLF

## General References

Wu TY, Peng Y, et al. (2010) Pharmacol. 161(7):1584-98.  
Bremer S, et al. (2008) Transplantation. 85(1):55-61.

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)