

## Recombinant Human IMP (Inosine 5'-Monophosphate) Dehydrogenase 2, His-tagged

Cat. No. IMPDH2-1274H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human IMPDH2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Source</b>	Human
<b>Description</b>	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).
<b>Form</b>	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 150mM NaCl
<b>Molecular Weight</b>	58.0kDa (534aa)
<b>Purity</b>	> 90% by SDS - PAGE
<b>Concentration</b>	0.5mg/ml (determined by Bradford assay)

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**Sequences of amino acids**

MGSSHHHHHH SSSLVPRGSH MADYLISGGT SYVPDDGLTA QQLFNCGDGL  
 TYNDLILPG YIDFTADQVD LTSALTKKIT LKTPLVSSPM DTVTEAGMAI  
 AMALTGGIGF IHHNCTPEFQ ANEVKVKKY EQGFITDPVV LSPKDRVRDV  
 FEAKARHGFC GIPITDTGRM GSRLVGISS RDIDFLKEEE HDCFLEEIMT  
 KREDLVVAPA GITLKEANEI LQRSKKGKLP IVNEDDELVA IIARTDLKKN  
 RDYPLASKDA KKQLLCGAAI GTHEDDKYRL DLLAQAGVDV VLDSSQGNS  
 IFQINMIKYI KDKYPNLQVI GGNVVTAQA KNLIDAGVDA LRVGMGSGSI  
 CITQEVLAGC RPQATAVYKV SEYARRFGVP VIADGGIQNV GHIAKALALG  
 ASTVMMGSL AATTEAPGEY FFSDGIRLKK YRGMGSLDAM DKHLSSQNRV  
 FSEADKIKVA QGVSGAVQDK GSIHKFVYPYL IAGIQHSCQD IGAKSLTQVR  
 AMMYSGELKF EKRTSSAQVE GGVHSLHSYE KRLF

**Storage**

Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.

**Pathways**

Drug metabolism - other enzymes; Metabolic pathways; Purine metabolism; Purine ribonucleoside monophosphate biosynthesis

## GENE INFORMATION

**Gene Name**

IMPDH2 IMP (inosine 5"-monophosphate) dehydrogenase 2 [ Homo sapiens ]

**Official Symbol**

IMPDH2

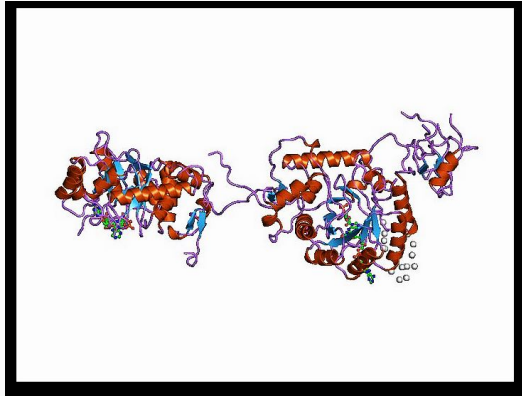
**Synonyms**

IMPDH2; IMPDH 2; IMPD2; IMPD 2; IMP (inosine 5"-monophosphate) dehydrogenase 2; IMP (inosine monophosphate) dehydrogenase 2; IMPDH-II; IMP oxireductase 2; inosine 5" phosphate dehydrogenase 2; inosine monophosphate dehydrogenase type II; IMP dehydrogenase 2; inosine-5"-monophosphate dehydrogenase 2; IMP dehydrogenase 2; EC 1.1.1.205; OTTHUMP00000210556

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<b>Gene ID</b>	3615
<b>mRNA Refseq</b>	NM_000884
<b>Protein Refseq</b>	NP_000875
<b>MIM</b>	146691
<b>UniProt ID</b>	P12268
<b>Chromosome Location</b>	3p21.2
<b>Function</b>	IMP dehydrogenase activity; metal ion binding; nucleotide binding; oxidoreductase activity; protein binding
<b>PDB rendering based on1b3o.</b>	

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