

Recombinant Human IMPDH1, His-tagged

Cat. No. IMPDH1-28268TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human IMPDH1 with an N terminal His tag; 534aa, 57.5kDa.
Species	Human
Source	E.coli
ProteinLength	514 amino acids
Description	The protein encoded by this gene acts as a homotetramer to regulate cell growth. The encoded protein is an enzyme that catalyzes the synthesis of xanthine monophosphate (XMP) from inosine-5-monophosphate (IMP). This is the rate-limiting step in the de novo synthesis of guanine nucleotides. Defects in this gene are a cause of retinitis pigmentosa type 10 (RP10). Several transcript variants encoding different isoforms have been found for this gene.
Conjugation	HIS
Molecular Weight	57.500kDa inclusive of tags
Tissue specificity	IMP type I is the main species in normal leukocytes and type II predominates over type I in the tumor.
Form	Liquid
Purity	>95% by SDS-PAGE

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Storage buffer	Preservative: None Constituents: 20% Glycerol, 20mM Tris HCl, 1mM DTT, pH 8.0
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MADYLISGGT GYVPEDGLTA QQLFASADGL TYNDLILPG FIDFIADVD LTSALTRKIT LKTPLISSPM DTVTEADMAI AMALMGGIGF IHHNCTPEFQ ANEVRKVKKF EQGFITDPVV LSPSHTVGDV LEAKMRHGFS GIPITETGM GSKLVGIVTS RDIDFLAEKD HTTLLSEVMT PRIELVVAPA GVTLKEANEI LQRSKKGKLP IVNDCDELVA IIARTDLKKN RDYPLASKDS QKQLLCGA AV GTREDDKYRL DLLTQAGVDV IVLDSSQGNS VYQIAMVHYI KQKYPHLQVI GGNVVTAAQA KNLIDAGVDG LRVGMGCGSI CITQEVMACGRPQGTAVYKV AEYARRFGVP IADGGIQT V GHVVKALALG ASTVMMGSLL AATTEAPGEY FFSDGVRLLK YRGMGSLDAM EKSSSSQKRY FSEGDKVKIA QGVSGSIQDK GSIQKFVPYL IAGIQHGCQD IGARSLSVLR SMMYSGELKF EKRTMSAQIE GGVHGLHSYE KRLY
Sequence Similarities	Belongs to the IMPDH/GMPR family. Contains 2 CBS domains.
GENE INFORMATION	
Gene Name	IMPDH1 IMP (inosine 5-monophosphate) dehydrogenase 1 [Homo sapiens]
Official Symbol	IMPDH1
Synonyms	IMPDH1; IMP (inosine 5-monophosphate) dehydrogenase 1; IMP (inosine monophosphate) dehydrogenase 1 , retinitis pigmentosa 10 (autosomal dominant) , RP10; inosine-5-monophosphate dehydrogenase 1; LCA11; sWSS2608;
Gene ID	3614

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mRNA Refseq	NM_000883
Protein Refseq	NP_000874
MIM	146690
Uniprot ID	P20839
Chromosome Location	7q31.3-q32
Pathway	Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism - other enzymes, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem;
Function	DNA binding; IMP dehydrogenase activity; RNA binding; metal ion binding; nucleic acid binding;

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