

Product datasheet for **RC227255**

IMPDH1 (NM_001142575) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_001142575) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IMPDH1
Synonyms:	IMPD; IMPD1; IMPDH-I; LCA11; RP10; sWSS2608
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC227255 representing NM_001142575
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACTACCTGATCAGCGGGCACCGGCTACGTGCCCGAGGATGGGCTCACCGCGCAGCAGCTCT
 TCGCCAGCGCCGACGGCCTCACCTACAACGACTTCTGATTCTCCAGGATTCATAGACTTCATAGCTGA
 TGAGGTGGACCTGACCTCAGCCCTGACCCGGAAGATCACGCTGAAGACGCCACTGATCTCTCCCCCATG
 GACACTGTGACAGAGGCTGACATGGCCATTGCCATGGCTAAGTTTGAACAGGGCTTCATCACGGACCCTG
 TGGTGCTGAGCCCTCGCACACTGTGGCGATGTGCTGGAGGCCAAGATGCGGCATGGTTCTCTGGCAT
 CCCCATCACTGAGACGGGCACCATGGGCAGCAAGCTGGTGGGCATCGTCACCTCCCGAGACATCGACTTT
 CTTGCTGAGAAGGACCACACCCTCCTCAGTGAGGTGATGACGCCAAGGATTGAACTGGTGGTGGCTC
 CAGCAGGTGTGACGTTGAAAGAGGCAAATGAGATCCTGCAGCGTAGCAAGAAAGGGAAGCTGCCTATCGT
 CAATGATTGCGATGAGCTGGTGGCCATCATCGCCCGCACCGACCTGAAGAAGAACCGAGACTACCCTCTG
 GCCTCAAAGGATCCCAAGCAGCTGCTGTGGGGCAGCTGTGGGCACCCGTGAGGATGACAAATACC
 GTCTGGACCTGCTCACCCAGGCGGGCTCGACGTATAGTCTTGGACTCGTCCCAAGGGAATTCGGTGT
 TCAGATCGCCATGGTGCATTACATCAAACAGAAGTACCCACCTCCAGGTGATTGGGGGAAACGTGGT
 ACAGCAGCCCAGGCCAAGAACCTGATTGATGCTGGTGTGGACGGGCTGCGCGTGGGCATGGGCTGCGGCT
 CCATCTGCATCACCCAGGAAGTATGGCCTGTGGTGGGCCAGGGCACTGCTGTGTACAAGGTGGCTGA
 GTATGCCCGGCGCTTTGGTGTGCCATCATAGCCGATGGCGGCATCCAGACCGTGGGACAGTGGTCAAG
 GCCCTGGCCCTTGAGCCTCCACAGTATGATGGGCTCCCTGCTGGCCGCACTACGGAGGCCCTGGCG
 AGTACTTCTTCTCAGACGGGGTGGGCTCAAGAAGTACCGGGGCATGGGCTCACTGGATGCCATGGAGAA
 GAGCAGCAGCAGCCAGAACGATACTTCAGCGAGGGGGATAAAGTGAAGATCGCGCAGGGTGTCTCGGGC
 TCCATCCAGGACAAGGATCCATTCAGAAGTTCGTGCCCTACCTCATAGCAGGCATCCAACACGGCTGCC
 AGGATATCGGGGCCGACGCTGTCTGTCTCGGTCCATGATGTAAGGAGAGCTCAAGTTTGAGAA
 GCGGACCATGTCGGCCAGATTGAGGGTGGTCCATGGCCTGCACTCTTACGAAAAGCGGCTGTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227255 representing NM_001142575
 Red=Cloning site Green=Tags(s)

MADYLISGGTGYVPEDGLTAQQLFASADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPM
 DTVTEADMAIAMAKFEQGFITDPVVLSPSHTVGDVLEAKMRHGFSGIPITETGTMGSKLVGIVTSRDIDF
 LAEKDHTLLSEVMTPIELVVAPAGVTLKEANEILQRSKKGKLPVNDCEDELVAIARTDLKKNRDYPL
 ASKDSQKQLLCGAAVGTREDDKYRLDLLTQAGVDVIVLDSQQNSVYQIAMVHYIKQKYPHLQVIGGNV
 TAAQAKNLIDAGVDGLRVGMCGSICITQEVMACGRPQGTAVYKVAEYARRFGVPIIADGGIQTGVHVK
 ALALGASTVMMGSLAATTEAPGEYFFSDGVRLKRYRGMGSLDAMEKSSSSQKRYFSEGDKVKIAQGVSG
 SIQDKGSIQKFPYLIAGIQHGCQDIGARSLSVLRSMYSSELKFEKRTMSAQIEGGVHGLHSYEKRLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8063_a02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_001142575

ORF Size: 1467 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001142575.2](#)
RefSeq ORF: 1470 bp

Locus ID: 3614

UniProt ID: [P20839](#)
Cytogenetics: 7q32.1

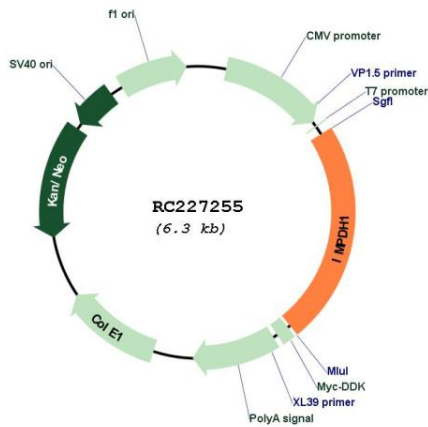
Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism

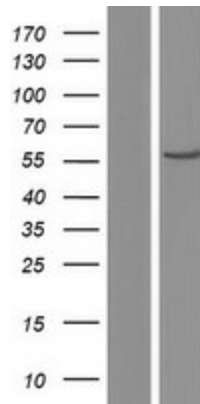
MW: 52.4 kDa

Gene Summary: 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. [provided by RefSeq, Dec 2008]

Product images:



Circular map for RC227255



Western blot validation of overexpression lysate (Cat# [LY428185]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227255 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).