

Product datasheet for **RC227125**

IMPDH1 (NM_001142573) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_001142573) 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:

>RC227125 representing NM_001142573
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACTACCTGATCAGCGGGCACCGGCTACGTGCCCGAGGATGGGCTCACCGCGCAGCAGCTCT
 TCGCCAGCGCCGACGGCCTCACCTACAACGACTTCCTGATTCTCCAGGATTCATAGACTTCATAGCTGA
 TGAGGTGGACCTGACCTCAGCCCTGACCCGGAAGATCACGCTGAAGACGCCACTGATCTCTCCCCCATG
 GACACTGTGACAGAGGCTGACATGGCCATTGCCATGGCTCTGATGGGAGGTATTGGTTTCATTACCACA
 ACTGCACCCAGAGTTCCAGGCCAACGAGGTGCGGAAGTCAAGAAGTTTGAACAGGGCTTCATCACGGA
 CCCTGTGGTGCTGAGCCCTCGCACACTGTGGCGATGTGCTGGAGGCCAAGATGCGGCATGGCTTCTCT
 GGCATCCCCATCACTGAGACGGGCACCATGGGCAGCAAGCTGGTGGGCATCGTCACCTCCGAGACATCG
 ACTTTCTTGCTGAGAAGGACCACACCACCTCCTCAGTGAGGTGATGACGCCAAGGATTGAACTGGTGGT
 GGCTCCAGCAGGTGTGACGTTGAAAGAGGCAAATGAGATCCTGCAGCGTAGCAAGAAAGGGAAGCTGCCT
 ATCGTCAATGATTGCGATGAGCTGGTGGCCATCATCGCCCGACCGACCTGAAGAAGAACCAGACTACC
 CTCTGGCCTCCAAGGATTCCCAGAAGCAGCTGCTCTGTGGGGCAGCTGTGGGCACCCGTGAGGATGACAA
 ATACCGTCTGGACCTGCTCACCCAGCGGGCGTCGACGTCATAGTCTTGGACTCGTCCCAAGGGAATTGCG
 GTGATCAGATCGCCATGGTGCATTACATCAAACAGAAGTACCCACCTCCAGGTGATTGGGGGAACG
 TGGTGACAGCAGCCAGGCCAAGAACCTGATTGATGCTGGTGTGGACGGGCTGCGCGTGGGCATGGGCTG
 CGGCTCCATCTGCATCACCCAGGAAGTATGGCCTGTGGTGGGCCAGGGCACTGCTGTGTACAAGGTG
 TCTGAGTATGCCCGCGCTTTGGTGTGCCATCATAGCCGATGGCGGCATCCAGACCGTGGGACAGCTGG
 TCAAGGCCCTGGCCCTTGAGCCTCCACAGTGATGATGGGCTCCCTGCTGGCCCACTACGGAGGCCCC
 TGGCGAGTACTTCTTCTCAGACGGGTGCGGCTCAAGAAGTACCGGGCATGGGCTCACTGGATGCCATG
 GAGAAGAGCAGCAGCAGCCAGAAACGATCTTACGCGAGGGGGATAAAGTGAAGATCGCGCAGGGTGTCT
 CGGGCTCCATCCAGGACAAAGGATCCATTCAGAAGTTCGTGCCCTACCTCATAGCAGGCATCCAACACGG
 CTGCCAGGATATCGGGCCCGCAGCCTGTCTGTCTTCGGTCCATGATGTACTCAGGAGAGCTCAAGTTT
 GAGAAGCGGACCATGTCGGCCAGATTGAGGGTGGTGTCCATGGCCTGCACTCTTACGAAAAGCGGCTGT
 AC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227125 representing NM_001142573
 Red=Cloning site Green=Tags(s)

MADYLISGGTGYVPEDGLTAQQLFASADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPM
 DTVTEADMAIAMALMGGIGFIHHNCTPEFQANEVRKVKKFEQGFITDPVVLSPSHVGDVLEAKMRHGFS
 GIPITETGTMGSKLVGIVTSRDIDFLAEKDHTLLSEVMPRIELVVAPAGVTLKEANEILQRSKKGLP
 IVNDCDELVAIIARTDLKKNRDYPLASKDSQKQLLCGAAVGTREDDKYRLDLLTQAGVDVIVLDSSQGNS
 VYQIAMVHYIKQKYPHLQVIGGNVVTAAQAKNLIDAGVDGLRVGMGCGSICITQEVMACGRPQGTAVYKV
 AEYARRFGVPIIADGGIQTVGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKKYRGMGSLDAM
 EKSSSSQKRYFSEGDKVIAQGVSGSIQDKGSIQKFPVYLIAGIQHCQDIGARSLSVLRSMMSYSGELKF
 EKRTMSAQIEGGVHGLHSYEKRLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001142573

ORF Size: 1542 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_001142573.2](#)
RefSeq Size: 2395 bp

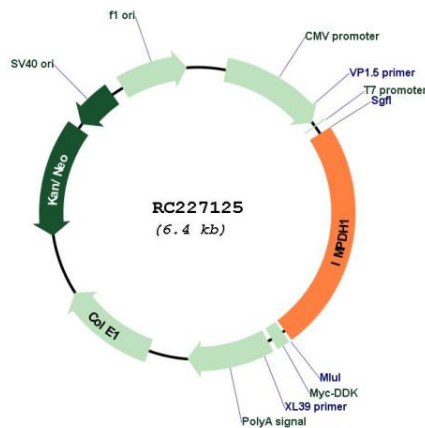
RefSeq ORF: 1545 bp

Locus ID: 3614

UniProt ID: [P20839](#)

Cytogenetics:	7q32.1
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism
MW:	55.4 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 RC227125