

Product datasheet for **RC227194**

IMPDH1 (NM_001142574) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_001142574) 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)



[View online »](#)

ORF Nucleotide Sequence:

>RC227194 representing NM_001142574
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACTACCTGATCAGCGGGCACCGGCTACGTGCCCGAGGATGGGCTCACCGCGCAGCAGCTCT
 TCGCCAGCGCCGACGGCCTCACCTACAACGACTTCCTGATTCTCCAGGATTCATAGACTTCATAGCTGA
 TGAGGTGGACCTGACCTCAGCCCTGACCCGGAAGATCACGCTGAAGACGCCACTGATCTCTCCCCCATG
 GACACTGTGACAGAGGCTGACATGGCCATTGCCATGGCTCTGATGGGAGGTATTGGTTTCATTACCACA
 ACTGCACCCAGAGTTCCAGGCCAACGAGAAGTTTGAACAGGGCTTCATCACGGACCCTGTGGTCTGAG
 CCCCTCGCACACTGTGGGCGATGTGCTGGAGGCCAAGATGCGGCATGGCTTCTCTGGCATCCCCACT
 GAGACGGGCACCATGGGCAGCAAGCTGGTGGGCATCGTCACTCCCGAGACATCGACTTTCTTGTGAGA
 AGGACCACACCCTCCTCAGTGAGGTGATGACGCCAAGGATTGAAGTGGTGGTGGCTCCAGCAGGTGT
 GACGTTGAAAGAGGCAAATGAGATCCTGCAGCGTAGCAAGAAAGGGAAGCTGCCTATCGTCAATGATTGC
 GATGAGCTGGTGGCCATCATCGCCCGCACCGACCTGAAGAAGAACCAGACTACCTCTGGCCTCCAAGG
 ATCCCAAGAAGCAGCTGCTCTGTGGGGCAGCTGTGGGCACCCGTGAGGATGACAAATACCGTCTGGACCT
 GCTCACCCAGGCGGGCGTCGACGTCATAGTCTTGGACTCGTCCCAAGGGAATTCGGTGTATCAGATCGCC
 ATGGTGCATTACATCAAACAGAAGTACCCACCTCCAGGTGATTGGGGGAACGTGGTGACAGCAGCCC
 AGGCCAAGAACCTGATTGATGCTGGTGTGGACGGGCTGCGCGTGGGCATGGGCTGCGGCTCCATCTGCAT
 CACCCAGGAAGTATGGCCTGTGGTGGCCCGAGGCACTGCTGTGTACAAGGTGGCTGAGTATGCCCGG
 CGCTTTGGTGTGCCATCATAGCCGATGGCGGCATCCAGACCGTGGGACACGTGGTCAAGGCCCTGGCC
 TTGGACCTCCACAGTATGATGGGCTCCCTGCTGGCCGCACTACGGAGGCCCTGGCGAGTACTTCTT
 CTCAGACGGGGTGGCTCAAGAAGTACCGGGCATGGGCTCACTGGATGCCATGGAGAAGCAGCAGC
 AGCCAGAAACGATACTTCAGCGAGGGGATAAAGTGAAGATCGCGCAGGGTGTCTCGGGCTCCATCCAGG
 ACAAAGGATCCATTGAGAAGTTCGTGCCCTACCTCATAGCAGGCATCCAACACGGCTGCCAGGATATCGG
 GGCCCGCAGCCTGTCTGTCTTCCGTCCATGATGTACTCAGGAGAGCTCAAGTTTGAGAAGCGGACCATG
 TCGGCCAGATTGAGGTTGGTGTCCATGGCCTGCACTCTACGAAAGCGGCTGTAC

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227194 representing NM_001142574
 Red=Cloning site Green=Tags(s)

MADYLISGGTGYVPEDGLTAQQLFASADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPM
 DTVTEADMAIAMALMGGIGFIHNNCTPEFQANEKFEQGFITDPVVLSPSHTVGDVLEAKMRHGFSGIPIT
 ETGTMGSKLVGIVTSRDIDFLAEKDHTLLSEVMPRIELVVAPAGVTLKEANEILQRSKKGKLPVND
 DELVAIIARTDLKKNRDPYPLASKDSQKQLLCAAAGVTREDDKYRLDLLTQAGVDVIVLDSQNSVYQIA
 MVHYIKQKYPHLQVIGNVVTAQAQKNLIDAGVDGLRVGMCGSICITQEVMACGRPQGTAVYKVAEYAR
 RFGVPIIADGGIQTGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKKYRGMGSLDAMEKSSS
 SQKRYFSEGDKVIAQGVSGSIQDKGSIQKFPVYLIAGIQHCQDYGARSLSVLRSMYSSELKFEKRTM
 SAQIEGGVHGLHSYEKRLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8064_c11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001142574

ORF Size: 1527 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_001142574.2](#)

RefSeq ORF: 1530 bp

Locus ID: 3614

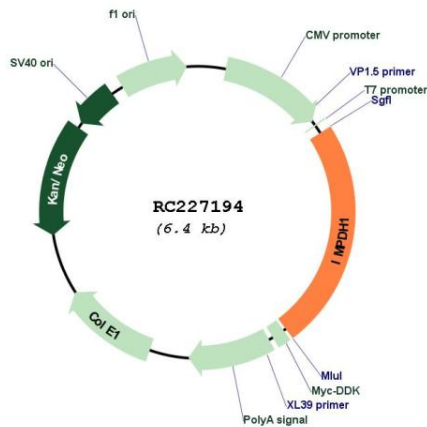
UniProt ID: [P20839](#)

Cytogenetics: 7q32.1

Protein Families: Druggable Genome

Protein Pathways:	Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism
MW:	54.6 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 RC227194