

Product datasheet for **RG227349**

IMPDH1 (NM_001142576) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_001142576) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IMPDH1
Synonyms:	IMPD; IMPD1; IMPDH-I; LCA11; RP10; sWSS2608
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG227349 representing NM_001142576
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGAGGGGCCACTCACTCCACCACCGCTGCAGGGAGGCGGAGCCGCGTGTCCGGAGCCCGGAGCCC
 GGCAACACCCGGACACGAGACGCGCGGCCAGCGGTACAGCGCCGACTGCTGCAGGCCGGCTACGAGCC
 CGAGAGCCCTAGATTGGACCTCGCTACACACCCGACGACACCCCGTTCAGAACTATCTTCAGTGGTCTTA
 CTGGCAGGTGTTGGTGTCCAGATGGATCGCCTTCGAGGGCTAGCGACTTCCTGATTCTCCAGGATTCA
 TAGACTTCATAGCTGATGAGGTGGACCTGACCTCAGCCCTGACCCGGAAGATCACGCTGAAGACGCCACT
 GATCTCTCCCCATGGACTGTGACAGAGGCTGACATGGCCATTGCCATGGCTCTGATGGGAGGTATT
 GGTTCATTACCACAACCTGCACCCAGAGTCCAGGCCAACGAGGTGCGGAAGGTCAAGAAGTTTGAAC
 AGGGCTTCATCACGGACCTGTGGTGTGAGCCCTCGCACACTGTGGCGATGTCTGGAGGCCAAGAT
 GCGGCATGGCTTCTCGCATCCCCATCACTGAGACGGGCACCATGGGCAGCAAGCTGGTGGGCATCGTC
 ACCTCCCGAGACATCGACTTTCTTGCTGAGAAGGACCACACCACCTCCTCAGTGAGGTGATGACGCCAA
 GGATTGAACTGGTGGTGGCTCCAGCAGGTGTGACGTTGAAAGAGGCCAAATGAGATCCTGCAGCGTAGCAA
 GAAAGGGAAGCTGCCTATCGTCAATGATTGCGATGAGCTGGTGGCCATCATCGCCCGCACCGACCTGAAG
 AAGAACCAGACTACCTCTGGCCTCCAAGGATCCCAGAAGCAGCTGCTCTGTGGGGCAGCTGTGGGCA
 CCCGTGAGGATGACAAAACCGTCTGGACTGCTCACCCAGGCGGGCGTCGACGTCATAGTCTTGGACTC
 GTCCAAAGGGAATTCGGTGTATCAGATCGCCATGGTGCATTACATCAAACAGAAGTACCCCCACCTCCAG
 GTGATTTGGGGGAACGTGGTGACAGCAGCCAGGCCAAGAACCTGATTGATGCTGGTGTGGACGGGCTGC
 GCGTGGGCATGGGCTGCGGCTCCATCGCATCACCCAGGAAGTATGGCCTGTGGTGTGGACGGGCTGC
 TGCTGTGTACAAGGTGGCTGAGTATGCCCGCGCTTTGGTGTGCCATCATAGCCGATGGCGGCATCCAG
 ACCGTGGGACACGTGGTCAAGGCCTGGCCCTTGAGCCTCCACAGTGTGATGGCTCCCTGCTGGCCG
 CCACTACGGAGGCCCTGGCGAGTACTTCTCAGACGGGGTGCAGGCTCAAGAAGTACCGGGCATGGG
 CTCACTGGATGCCATGGAGAAGAGCAGCAGCAGCCAGAAACGATACTTCAGCGAGGGGATAAAGTGAAG
 ATCGCGCAGGGTGTCTCGGGCTCCATCCAGGACAAAGGATCCATTCAGAAGTTCGTGCCCTACCTCATAG
 CAGGCATCCAACACGGCTGCCAGGATATCGGGCCCGCAGCCTGTCTGTCCTTCGGTCCATGATGTACTC
 AGGAGAGCTCAAGTTTGAGAAGCGGACCATGTCGGCCAGATTGAGGGTGGTGTCCATGGCTGCACTCT
 TACGAAAAGCGGCTGTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG227349 representing NM_001142576
 Red=Cloning site Green=Tags(s)

MEGPLTPPPLQGGGAAAVPEPGARQHPGHETAARYSARLLQAGYEPESPRLDLATHPTTPRSELSVVV
 LAGVGVQMDRLRRASDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPMDTVTEADMAIAMALMGGI
 GFIIHNCPTPEFQANEVRKVKFEQGFITDPVVLSPSHTVGDVLEAKMRHGFSGIPITETGTMGSKLVGIV
 TSRDIDFLAEKDHTLLSEVMPRIELVAPAGVTLKEANEILQRSKKGKLPVNDCEDELVAIIARTDLK
 KNRDYPLASKDSQKQLLCAAVGTREDDKYRLDLLTQAGVDVIVLDSSQGNVYQIAMVHYIKQKYPHLQ
 VIGGNVVTAAQAKNLIDAGVDGLRVGMGCSICITQEVMACGRPQGTAVYKVAEYARRFGVPIIADGGIQ
 TVGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKRYRGMGSLDAMEKSSSQKRYFSEGDKVK
 IAQGVSGSIQDKGSIQKFPYLIAGIQHGCQDIGARSLSVLRSMYSSELKFEKRTMSAQIEGGVHGLHS
 YEKRLY

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001142576

ORF Size: 1698 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_001142576.2](#)

RefSeq Size: 2526 bp

RefSeq ORF: 1701 bp

Locus ID: 3614

UniProt ID: [P20839](#)

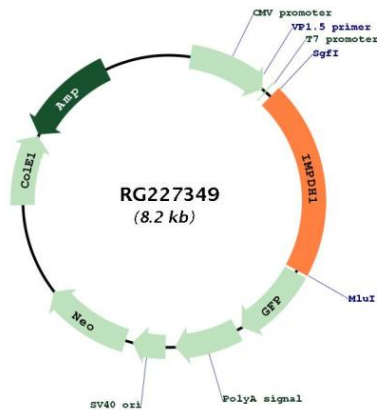
Cytogenetics: 7q32.1

Protein Families: Druggable Genome

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

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 RG227349