

Product datasheet for **SC316947**

IMPDH1 (NM_001102605) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_001102605) Human Untagged Clone
Tag:	Tag Free
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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Fully Sequenced ORF: >SC316947 representing NM_001102605.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGAGGGGCCACTCACTCCACCACCGCTGCAGGGAGCGGAGCCGCGTGTCCGGAGCCCGGAGCC
CGGCAACACCCGGGACACGAGACGGCGGGCAGCGGTACAGCGCCCGACTGCTGCAGGCCGGCTACGAG
CCCGAGAGCTGTTTCTCCTAGAACTATCTTCAGTGGTCTTACTGGCAGGTGTTGGTGTCCAGATGGAT
CGCCTTCGCAGGGCTAGCATGGCGGACTACCTGATCAGCGGGCGCACCGGCTACGTGCCCGAGGATGGG
CTCACCGCGCAGCAGCTCTTCGCCAGCGCCGACGGCTCACCTACAACGACTTCTGATTCTCCAGGA
TTCATAGACTTTCATAGCTGATGAGGTGGACCTGACCTCAGCCCTGACCCGGAAGTACAGCTGAAGACG
CCACTGATCTCTCCCATGGACTGTGACAGAGGCTGACATGGCCATTGCCATGGCTCTGATGGGA
GGTATTGGTTTCATTACCACAACCTGCACCCAGAGTTCAGGCCAACGAGGTGCGGAAGGTCAAGAAG
TTTGAACAGGGCTTCATACGGACCCTGTGGTGTGAGCCCTCGCACACTGTGGCGATGTGCTGGAG
GCCAAGATGCGGCATGGCTTCTCTGGCATCCCATCACTGAGACGGGCACCATGGGCAGCAAGCTGGTG
GGCATCGTCACCTCCCGAGACATCGACTTCTTGTCTGAGAAGGACCACACCACCTCCTCAGTGAGGTG
ATGACGCCAAGGATTGAACTGGTGGTGGCTCCAGCAGGTGTGACGTTGAAAGAGGCAAATGAGATCCTG
CAGCGTAGCAAGAAAGGGAAGCTGCCTATCGTCAATGATTGCGATGAGCTGGTGGCCATCATCGCCCGC
ACCGACCTGAAGAAGAACCGAGACTACCTCTGGCCTCCAAGGATTCGAGAAAGCAGCTGCTCTGTGGG
GCAGCTGTGGGCACCCGTGAGGATGACAAATACCGTCTGGACCTGCTCACCCAGGCGGGCGTCGACGTC
ATAGTCTTGGACTCGTCCAAGGGAATTCGGTGTATCAGATCGCCATGGTGCATTACATCAACAGAAG
TACCCACCTCCAGGTGATTGGGGGAACGTGGTGACAGCAGCCAGGCCAAGAACCTGATTGATGCT
GGTGTGGACGGGCTGCGCGTGGGCATGGGCTGCGGCTCCATCTGCATCACCCAGGAAGTGTGGCCTGT
GGTCGGCCCCAGGCACTGCTGTGTACAAGGTGGCTGAGTATGCCCGGCGCTTTGGTGTGCCATCATA
GCCGATGGCGGCATCCAGACCGTGGGACACGTGGTCAAGGCCCTGGCCCTTGGAGCTCCACAGTATG
ATGGGCTCCCTGCTGGCCGCCACTACGGAGGCCCTGGCGAGTACTTCTTCTCAGACGGGTGCGGCTC
AAGAAGTACCGGGGCATGGGCTCACTGGATGCCATGGAGAAGAGCAGCAGCAGCCAGAAACGATACTTC
AGCGAGGGGGATAAAGTGAAGATCGCGCAGGGTGTCTCGGGCTCCATCCAGGACAAAGGATCCATTAG
AAGTTCGTGCCCTACCTCATAGCAGGCATCCAACACGGCTGCCAGGATATCGGGGCCCGCAGCCTGTCT
GTCCTTCGGTCCATGATGTACTCAGGAGAGCTCAAGTTTGAGAAGCGGACCATGTGCGCCAGATTGAG
GGTGGTGTCCATGGCCTGCACTTTACGAAAAGCGGCTGTACTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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- Restriction Sites:** Sgfl-MluI
- Plasmid Map:** □
- ACCN:** NM_001102605
- Insert Size:** 1770 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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_001102605.1](#)

RefSeq Size: 2595 bp

RefSeq ORF: 1770 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: 63.3 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]

Transcript Variant: This variant (3) lacks an alternate in-frame segment compared to variant 1. The resulting isoform (c) has the same N- and C-termini but is shorter compared to isoform a.