

Product datasheet for **RG202977**

IMPDH2 (NM_000884) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH2 (NM_000884) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IMPDH2
Synonyms:	IMPD2; IMPDH-II
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG202977 representing NM_000884
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGACTACCTGATTAGTGGGGCAGTCCTACGTGCCAGACGCGACTCACAGCACAGCAGCTCT
 TCAACTGCGGAGACGGCCTCACCTACAATGACTTTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGA
 CCAGGTGGACCTGACTTCTGCTCTGACCAAGAAAATCACTCTTAAGACCCCACTGGTTTCTCTCCCATG
 GACACAGTCACAGAGGCTGGGATGGCCATAGCAATGGCGCTTACAGGCGGTATTGGCTTCACTCCACCACA
 ACTGTACACCTGAATCCAGGCCAATGAAGTTCGGAAAGTGAAGAAAATGAACAGGGATTCACTACAGA
 CCCTGTGGTCTCAGCCCCAAGGATCGCGTGGGGATGTTTTGAGGCCAAGGCCCGCATGTTTTCTGC
 GGTATCCCAATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCTCCAGGGACATTG
 ATTTTCTCAAAGAGGAGGAACATGACTGTTTCTTGAAGAGATAATGACAAAGAGGAAGACTTGGTGGT
 AGCCCCGTCAGGCATCACACTGAAGGAGGCAAATGAAATTCGACGCGCAGCAAGAAGGGAAAGTTGCC
 ATTGTAATGAAGATGATGAGCTTGTGGCCATCATTGCCCGACAGACCTGAAGAAGAATCGGGACTACC
 CACTAGCCTCAAAGATGCCAAGAAACAGCTGCTGTGTGGGGCAGCCATTGGCACTCATGAGGATGACAA
 GTATAGGCTGGACTTGTCTGCCCCAGGCTGGTGTGGATGTAGTGGTTTTGGACTCTTCCCAGGGAAATTC
 ATCTTCCAGATCAATATGATCAAGTACATCAAAGACAAATACCCTAATCTCCAAGTCATTGGAGGCAATG
 TGGTCACTGTGCCAGGCCAAGAACCTCATTGATGCAGGTGTGGATGCCCTGCGGGTGGGCATGGGAAG
 TGGCTCCATCTGCATTACGCAGGAAGTGTGGCCTGTGGCGGCCCAAGCAACAGCAGTGTACAAGGTG
 TCAGAGTATGCACGGCGCTTTGGTGTCCGGTCATTGCTGATGGAGGAATCCAAAATGTGGTGCATATTG
 CGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCATGATGGGCTCTCTCTGGCTGCCACCCTGAGGCCCC
 TGGTGAATACTTCTTTTCCGATGGGATCCGGCTAAAGAAAATATCGCGGTATGGGTTCTCTCGATGCCATG
 GACAAGCACCTCAGCAGCCAGAACAGATATTTCACTGAAGCTGACAAAATCAAAGTGGCCAGGGAGTGT
 CTGGTGTGTGCAGGACAAAGGTCATCCACAAATTTGTCCCTTACCTGATTGCTGGCATCCAACACTC
 ATGCCAGGACATTGGTGCCAAGAGCTTGACCCAAGTCCGAGCCATGATGTACTCTGGGGAGCTTAAGTTT
 GAGAAGAGAACGTCCTCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTCTGATGAGAAGCGGCTTT
 TC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG202977 representing NM_000884
 Red=Cloning site Green=Tags(s)

MADYLISGGTSYVPDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPM
 DTVTEAGMAIAMALTGGIGFIHNCNCTPEFQANEVRKVKKYEQGFITDPVVLSPKDRVRDVFCAKARHGFC
 GIPITDTGRMGSRVGISSRDIDFLKEEHDFLEEIMTKREDLVVAPAGITLKEANEILQRSKKGKLP
 IVNEDDELVAIIARTDLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGN
 IFQINMIKIKDKYPNLQVIGGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEVLACGRPQATAVYKV
 SEYARRFVGPVIADGGIQNVGHIKALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAM
 DKHLSSQNRVYFSEADKIKVAQGVSGAVQDKGSIHKFVYPYLIAGIQHSCQDIGAKSLTQVRAMMYSGELKF
 EKRTSSAQVEGGVHLSHSYEKRLF

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_000884

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_000884.3](#)

RefSeq Size: 1712 bp

RefSeq ORF: 1545 bp

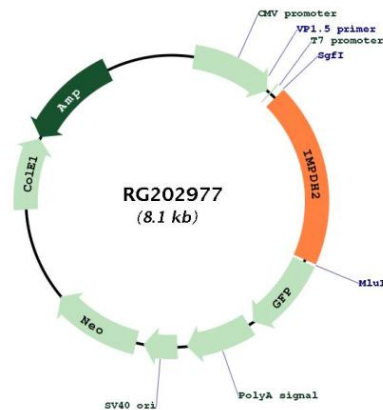
Locus ID: 3615

UniProt ID: [P12268](#)

Cytogenetics: 3p21.31

Domains:	CBS, IMPDH
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism
Gene Summary:	This gene encodes the rate-limiting enzyme in the de novo guanine nucleotide biosynthesis. It is thus involved in maintaining cellular guanine deoxy- and ribonucleotide pools needed for DNA and RNA synthesis. The encoded protein catalyzes the NAD-dependent oxidation of inosine-5'-monophosphate into xanthine-5'-monophosphate, which is then converted into guanosine-5'-monophosphate. This gene is up-regulated in some neoplasms, suggesting it may play a role in malignant transformation. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG202977