

Product datasheet for **MR230550**

Impdh1 (NM_001302934) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Impdh1 (NM_001302934) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Impdh1
Synonyms:	B930086D20Rik; IMPDH-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR230550 representing NM_001302934
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGAACCGCTCTACCCCCACCGAGTCCGGGCTGCTCTCGCCGCTGCTGCAGGGAGTGGAGCGG
 CTGCCGCTCCAGAGCCCGGAGCCCGCAACACCCGGGACATGAGACCCGGCGCAGCGGTACAGCGCCCG
 CCTGCTGCAGGCCGGCTACGAGCCGGAGAGCATGGCGGACTACCTGATCAGCGCCGGCACCGGCTACGTT
 CCCGAGGATGGGCTACCGCGCAGCAGCTCTTTGCCAACGCGGATGGCCTCACCTACAACGACTTCTCGA
 TCCTCCCAGGATTCATAGACTTCATAGCTGATGAAGTGGACCTGACATCAGCCCTGACCCGGAAGATCAC
 ACTGAAGACACCATTGATCTCGTCTCCCATGGATACAGTGACAGAGGCTGATATGGCCATTGCAATGGCT
 CTCATGGGAGGAATTGGTTTCATTCATCACAAGTACCCAGAGTTCAGGCCAATGAAGTACGGAAGG
 TCAAGAAGTTTGACAAGGCTTCATCACAGACCCTGTGGTCTGAGCCCTTCACATACTGTGGGTGATGT
 TCTGGAGGCCAAGATACAGCATGGCTTCTCTGGTATCCCATCACCGCGACGGGCACCATGGGGAGCAAG
 CTGGTGGGCATCGTCACCTCCCGAGACATTGACTTCTTGGTCTGAGAAGGACCACACCACCCTCTCAGTG
 AGGTGATGACTCCGAGGGTTCGAGCTGGTGGTGGCTCCAGCAGGTGTGACATTGAAAGAAGCAAATGAGAT
 CTTGCAGCGCAGCAAGAAAGGGAAGCTGCCCATAGTCAACGATCAAGATGAGCTGGTAGCCATCATTGCG
 CGCACAGACCTGAAGAAGAACAGAGACTACCCTCTGGCCTCCAAGGACTCCCACAAAACAGCTGTTGTGTG
 GGGCAGCTGTGGGCACCCGTGAGGATGACAAAATACCGCCTGGACCTGCTCACTCAGGCCGGTGTGACGT
 CATAGTACTAGATTTCATCCAGGGGAAGTCAAGTATCAGATCGCCATGGTGCATATATCAAGCAGAAG
 TACCCCACTCCAAGTATTGGGGAAATGTGGTGACAGCAGCCAGGCCAAGAAGTATTGATTGATGCTG
 GTGTGGACGGGCTTCGTGTGGGCATGGGCTGTGGTTCATCTGCATCACCCAGGAAGTATGGCCTGTGG
 CCGACCCAGGGGACTGCTGTCTACAAGGTGGCGGAGTACGCCCGACGTTTTGGGGTGCCGGTAATAGCG
 GATGGTGGCATCCAGACCGTGGGCCATGTGGTCAAAGCCCTGGCACTTGAGCCTCTACAGTAATGATGG
 GCTCCCTGCTGGCTGCCACCAGGAGGCGCCTGGTGAATACTTCTCTCAGATGGGGTGAGGCTGAAGAA
 GTACCGGGGATGGGTTCTCTGGACCCATGGAGAAGAGCAGCAGCAGCCAGAAAAGATACTTCAGTGAG
 GGGGATAAGGTGAAGATCGCACAAGGTGTCTCCGGTTCATCCAGGATAAAGGCTCCATTGAGAAGTTG
 TGCCCTACCTCATAGCAGGGATCCAGCATGGCTGCCAGGATATTGGGGCCAAAGCCTATCTGCTCTGCC
 ATCCATGATGACTCAGGAGAGCTCAAGTTTGAGAAGCGGACCATGTCGGCCAGATTGAGGGTGGCGTG
 CACGGCCTACACTTTACGAGAAGCGGCTGTAC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR230550 representing NM_001302934
 Red=Cloning site Green=Tags(s)

MEEPLSPPESGLLSPLLQGGGAAAPEPGARQHHPGHETAAQRY SARLLQAGYEPESMADY LISGGTGYV
 PEDGLTAQQLFANADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPMDTVTEADMAIAMA
 LMGGIGFIHHCNTPFEQANEVRKVKKFEQGFITDPVVLSPSHTVGDVLEAKIQHGFSGIPITATGTMGSK
 LVGIVTSRDIDFLAEKDHTLLSEVMTPRVELVVAPAGVTLKEANEILQRSKKGKLPVINDQDELVAIIA
 RTDLKKNRDYPLASKDSHKQLLCAAAVGTREDDKYRLDLLTQAGADVIVLDSSQNSVYQIAMVHYIKQK
 YPHLQVIGGNVVTAAQAKNLIDAGVDGLRVGMGCGSICITQEVMACGRPQGTAVYKVAEYARRFGVPVIA
 DGGIQTGVHVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKRYRGMGSLDAMEKSSSSQKRYFSE
 GDKVKIAQGVSGSIQDKGSIQKFPYLIAGIQHGCQDIGAQSLSVLRSMYSSELKFEKRTMSAQIEGGV
 HGLHSYEKRLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001302934

ORF Size: 1713 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_001302934.1](#), [NP_001289863.1](#)

RefSeq Size: 2617 bp

RefSeq ORF: 1716 bp

Locus ID: 23917

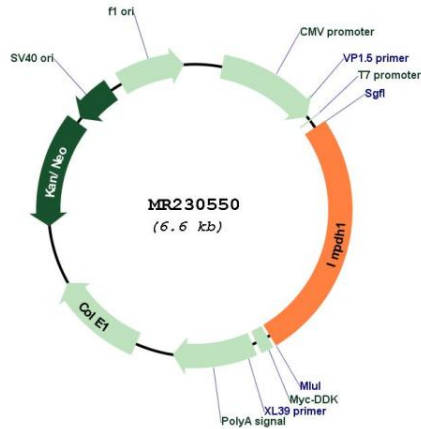
UniProt ID: [P50096](#)

Cytogenetics: 6 A3.3

MW: 61.6 kDa

Gene Summary: Catalyzes the conversion of inosine 5'-phosphate (IMP) to xanthosine 5'-phosphate (XMP), the first committed and rate-limiting step in the de novo synthesis of guanine nucleotides, and therefore plays an important role in the regulation of cell growth. Could also have a single-stranded nucleic acid-binding activity and could play a role in RNA and/or DNA metabolism. It may also have a role in the development of malignancy and the growth progression of some tumors.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR230550