

## Product datasheet for **MR208254**

### Impdh2 (NM\_011830) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Impdh2 (NM_011830) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Impdh2
Synonyms:	IMPD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR208254 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGACTACCTGATTAGCGGAGGCACCTCTTACGTGCCGGACGACGGGCTCACAGCGCAGCAGCTCT  
 TCAACTGCGGGGACGGCCTCACCTACAATGATTTTCTCATTCTTCTGGGTATATCGACTTCACTGCAGA  
 TCAGGTGGACTTGACGTCTGCTCTAACTAAGAAGATTACACTAAAGACCCATTGGTTTCTCACCCATG  
 GACACTGTACAGAGGCTGGAATGGCCATCGCGATGGCGTTACAGGAGGTATTGGTTTCACTCCACCACA  
 ACTGCACACCTGAATCCAGGCCAATGAAGTTCGGAAAGTGAAGAAATACGAACAGGGATTCACTACTGA  
 CCCCCTGGTCTTAGCCCAAGGATCGTGTACGCGATGTTTTGAGGCCAAAGCCAGGCATGGCTTCTGT  
 GGTATCCCATCACAGATACAGGCCGATGGGGAGTGGATTGGTGGGCATCATCTCTCAAGGGACATTG  
 ATTTCTCAAGGAGGAAGAGCATGACCGGTTCTTGAAGAGATCATGACTAAGAGGGAAGATTTGGTGGT  
 CGCCCTGCCGGCTCACTCTGAAAGAGGCAAATGAGATTCTGCAGCGAAGTAAAAGGGAAAGTTGCC  
 ATTTGTAATGAAAATGATGAGCTGGTAGCCATCATTGCCCGACAGACCTAAAGAAGAATCGTGATTACC  
 CCCTGGCTCCAAGATGCCAAGAAGCAACTGCTGTGGGGCAGCCATTGGCACTCATGAGGATGACAA  
 GTATAGGCTGGACTTACTGGCCCTTGTGGTGTGGATGTAGTGGTTTTGGACTCTTCCAGGGAACTCC  
 ATCTTCCAATCAATATGATCAAATACATCAAGGAGAAGTATCCAGTCTACAGGTCATTGGAGGCAATG  
 TAGTCACTGTGCGCAAGCCAAGAACCTCATAGATGCAGGTGTAGATGCTTTGCGAGTCGGCATGGGAAG  
 TGGTCCATCTGCATCACCCAGGAAGTGTGGCCTGTGGCGGCCCAAGCCACAGCAGTGTACAAGGTC  
 TCTGAATATGCCCGTCTTGGGCTTCCACAGTCTGATGGGCTCCCTCTGGCTGCCACCCTGAGGCCCC  
 CCAAAGTTGGCTTGGGCTTCCACAGTCTGATGGGCTCCCTCTGGCTGCCACCCTGAGGCCCC  
 TGGCGAGTACTTCTCTCAGATGGGATCCGGCTGAAGAAATACCGAGGTATGGGTTCTCTTGATGCCATG  
 GACAAACATCTCAGCAGCCAGAACCATACTTCACTGAAGCTGACAAAATCAAAGTGGCCCAAGGAGTTT  
 CAGGGGAGTGCAGGACAAGGGTCTATCCACAAGTTCGTTCTTACCTGATTGCTGGCATCCAGCATT  
 CTGTCAGGACATTGGTCCAAGAGTTTAAACCAAGTCAGAGCCATGATGTAAGTGGGGAGCTTAAATTT  
 GAGAAGAGGACATCTCTGCTCAGGTGGAAGGTGGCGTCCACAGCCTCCATTCGTACGAGAAACGGCTTT  
 TC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

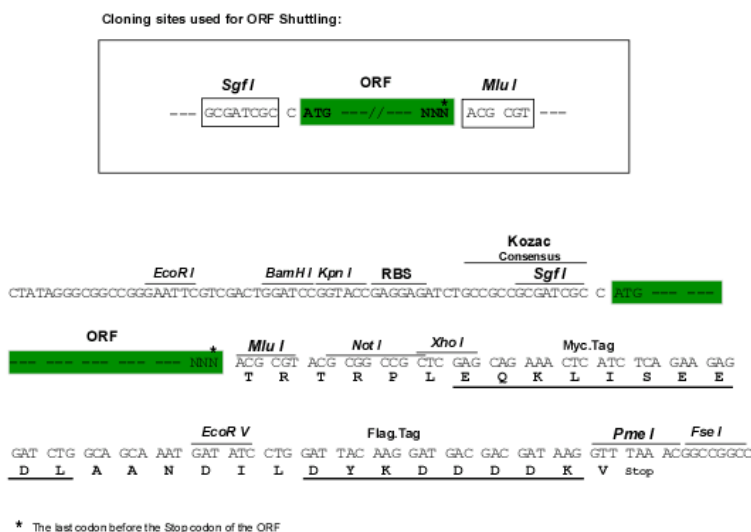
>MR208254 protein sequence  
 Red=Cloning site Green=Tags(s)

MADYLISGGTSYVPDDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPM  
 DTVTEAGMAIAMALTGGIGFIHHNCTPEFQANEVRKVKKYEQGFITDPVVLSPKDRVRDVFCAKARHGFC  
 GIPITDTGRMGSRVGISSRDIDFLKEEHRFLFEEIMTKREDLVVAPAGVTLKEANEILQRSKKGLP  
 IVNENDELVAIIARTDLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLALAGVDVVLDSSQGNS  
 IFQINMIKIKEKYPQLVIGGNVVTAAQAKNLIDAGVDALRVGMGSGSICITQEVLACGRPQATAVYKV  
 SEYARRFGVPIADGGIQNVGHIAKALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAM  
 DKHLSSQNRYSADKIKVAQGVSGAVQDKGSIHKFVPLYIAGIQHSCQDIGAKSLTQVRAMMYSGLKFL  
 EKRTSSAQVEGGVHLSHSEKRLF

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_011830

**ORF Size:** 1545 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\\_011830.2](#)

**RefSeq Size:** 1632 bp

**RefSeq ORF:** 1545 bp

**Locus ID:** 23918

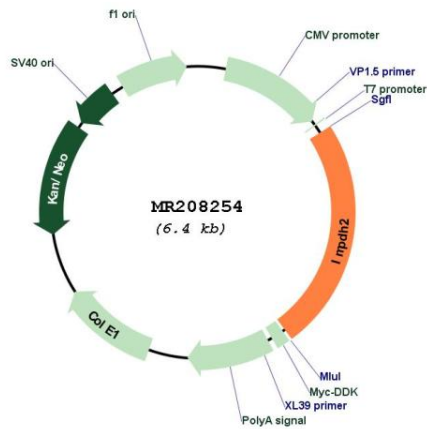
**UniProt ID:** [P24547](#)

**Cytogenetics:** 9 F2

**MW:** 55.8 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 MR208254