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Product datasheet for MG208250

Impdh1 (NM_011829) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Impdh1 (NM_011829) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Impdh1
Synonyms:	B930086D20Rik; IMPDH-I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG208250 representing NM_011829
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGACTACCTGATCAGCGGCGGCACCGGCTACGTTCCCGAGGATGGGCTCACCGCGCAGCAGCTCT
TTGCCAACGCGGATGGCCTCACCTACAACGACTTCCTGATCCTCCCAGGATTCATAGACTTCATAGCTGA
TGAAGTGGACCTGACATCAGCCCTGACCCGGAAGATCACACTGAAGACACCATTGATCTCGTCTCCCATG
GATACAGTGACAGAGGCTGATATGGCCATTGCAATGGCTCTCATGGGAGGAATTGGTTTCATTCATCACA
ACTGTACCCCAGAGTTCCAGGCCAATGAAGTACGGAAGGTCAAGAAGTTTGAGCAAGGCTTCATCACAGA
CCCTGTGGTCCTGAGCCCTTCACATACTGTGGGTGATGTTCTGGAGGCCAAGATACAGCATGGCTTCTCT
GGTATCCCCATCACCGCGACGGGCACCATGGGGAGCAAGCTGGTGGGCATCGTCACCTCCCGAGACATTG
ACTTCCTTGCTGAGAAGGACCACACCACCCTCCTCAGTGAGGTGATGACTCCGAGGGTCGAGCTGGTGGT
GGCTCCAGCAGGTGTGACATTGAAAGAAGCAAATGAGATCTTGCAGCGCAGCAAGAAAGGGAAGCTGCCC
ATAGTCAACGATCAAGATGAGCTGGTAGCCATCATTGCGCGCACAGACCTGAAGAAGAACAGAGACTACC
CTCTGGCCTCCAAGGACTCCCACAAACAGCTGTTGTGTGGGGCAGCTGTGGGCACCCGTGAGGATGACAA
ATACCGCCTGGACCTGCTCACTCAGGCCGGTGCTGACGTCATAGTACTAGATTCATCCCAGGGGAACTCA
GTGTATCAGATCGCCATGGTGCACTATATCAAGCAGAAGTACCCCCACCTCCAAGTGATTGGGGGAAATG
TGGTGACAGCAGCCCAGGCCAAGAACTTGATTGATGCTGGTGTGGACGGGCTTCGTGTGGGCATGGGCTG
TGGTTCCATCTGCATCACCCAGGAAGTGATGGCCTGTGGCCGACCCCAGGGGACTGCTGTCTACAAGGTG
GCCGAGTACGCCCGACGTTTTGGGGTGCCGGTAATAGCGGATGGTGGCATCCAGACCGTGGGCCATGTGG
TCAAAGCCCTGGCACTTGGAGCCTCTACAGTAATGATGGGCTCCCTGCTGGCTGCCACCACGGAGGCGCC
TGGTGAATACTTCTTCTCAGATGGGGTGAGGCTGAAGAAGTACCGGGGCATGGGTTCTCTGGACGCCATG
GAGAAGAGCAGCAGCAGCCAGAAAAGATACTTCAGTGAGGGGGATAAGGTGAAGATCGCACAAGGTGTCT
CCGGTTCCATCCAGGATAAAGGCTCCATTCAGAAGTTTGTGCCCTACCTCATAGCAGGGATCCAGCATGG
CTGCCAGGATATTGGGGCCCAAAGCCTATCTGTCCTGCGATCCATGATGTACTCAGGAGAGCTCAAGTTT
GAGAAGCGGACCATGTCGGCCCAGATTGAGGGTGGCGTGCACGGCCTACACTCTTACGAGAAGCGGCTGT
AC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

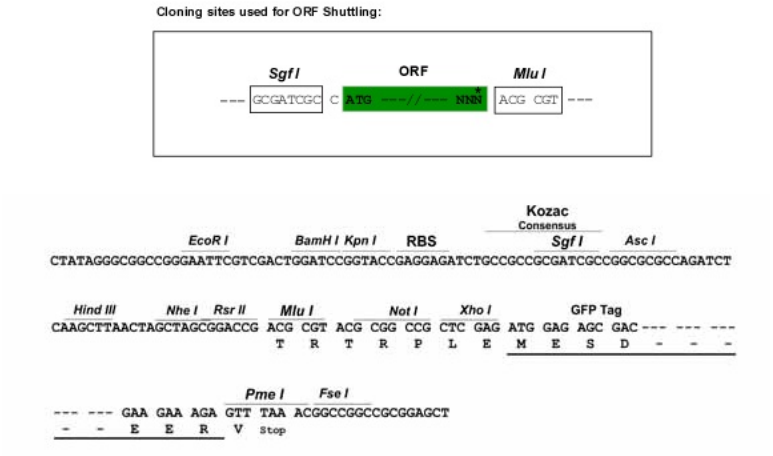
>MG208250 representing NM_011829
Red=Cloning site Green=Tags(s)

MADYLISGGTGYVPEDGLTAQQLFANADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPM
DTVTEADMAIAMALMGGIGFIHHNCTPEFQANEVRKVKKFEQGFITDPVVLSPSHTVGDVLEAKIQHGFS
GIPITATGTMGSKLVGIVTSRDIDFLAEKDHTTLLSEVMTPRVELVVAPAGVTLKEANEILQRSKKGKLP
IVNDQDELVAIIARTDLKKNRDYPLASKDSHKQLLCGAAVGTREDDKYRLDLLTQAGADVIVLDSSQGNS
VYQIAMVHYIKQKYPHLQVIGGNVVTAAQAKNLIDAGVDGLRVGMGCGSICITQEVMACGRPQGTAVYKV
AEYARRFGVPVIADGGIQTVGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKKYRGMGSLDAM
EKSSSSQKRYFSEGDKVKIAQGVSGSIQDKGSIQKFVPYLIAGIQHGCQDIGAQSLSVLRSMMYSGELKF
EKRTMSAQIEGGVHGLHSYEKRLY

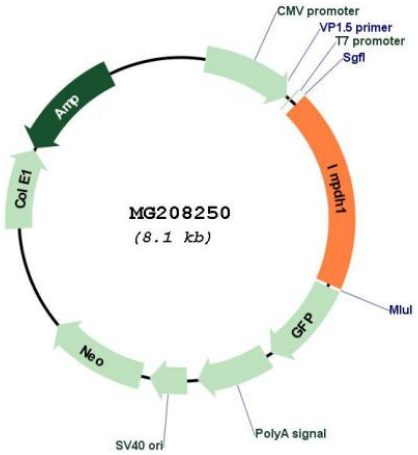
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_011829
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_011829.3, NP_035959.2
RefSeq Size:	2436 bp
RefSeq ORF:	1545 bp
Locus ID:	23917
UniProt ID:	P50096
Cytogenetics:	6 A3.3
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]