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Product datasheet for MR230551

Impdh1 (NM_001302933) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Impdh1 (NM_001302933) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Impdh1
Synonyms:	B930086D20Rik; IMPDH-I
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>MR230551 representing NM_001302933
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGAACCGCTCTCACCCCCACCGGAGTCCGGGCTGCTCTCGCCGCTGCTGCAGGGAGGTGGAGCGG
CTGCCGCTCCAGAGCCCGGAGCCCGGCAACACCCGGGACATGAGACCGCGGCGCAGCGGTACAGCGCCCG
CCTGCTGCAGGCCGGCTACGAGCCGGAGAGCAGCATGGCGGACTACCTGATCAGCGGCGGCACCGGCTAC
GTTCCCGAGGATGGGCTCACCGCGCAGCAGCTCTTTGCCAACGCGGATGGCCTCACCTACAACGACTTCC
TGATCCTCCCAGGATTCATAGACTTCATAGCTGATGAAGTGGACCTGACATCAGCCCTGACCCGGAAGAT
CACACTGAAGACACCATTGATCTCGTCTCCCATGGATACAGTGACAGAGGCTGATATGGCCATTGCAATG
GCTCTCATGGGAGGAATTGGTTTCATTCATCACAACTGTACCCCAGAGTTCCAGGCCAATGAAGTACGGA
AGGTCAAGAAGTTTGAGCAAGGCTTCATCACAGACCCTGTGGTCCTGAGCCCTTCACATACTGTGGGTGA
TGTTCTGGAGGCCAAGATACAGCATGGCTTCTCTGGTATCCCCATCACCGCGACGGGCACCATGGGGAGC
AAGCTGGTGGGCATCGTCACCTCCCGAGACATTGACTTCCTTGCTGAGAAGGACCACACCACCCTCCTCA
GTGAGGTGATGACTCCGAGGGTCGAGCTGGTGGTGGCTCCAGCAGGTGTGACATTGAAAGAAGCAAATGA
GATCTTGCAGCGCAGCAAGAAAGGGAAGCTGCCCATAGTCAACGATCAAGATGAGCTGGTAGCCATCATT
GCGCGCACAGACCTGAAGAAGAACAGAGACTACCCTCTGGCCTCCAAGGACTCCCACAAACAGCTGTTGT
GTGGGGCAGCTGTGGGCACCCGTGAGGATGACAAATACCGCCTGGACCTGCTCACTCAGGCCGGTGCTGA
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TGGCCGACCCCAGGGGACTGCTGTCTACAAGGTGGCCGAGTACGCCCGACGTTTTGGGGTGCCGGTAATA
GCGGATGGTGGCATCCAGACCGTGGGCCATGTGGTCAAAGCCCTGGCACTTGGAGCCTCTACAGTAATGA
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GAGGGGGATAAGGTGAAGATCGCACAAGGTGTCTCCGGTTCCATCCAGGATAAAGGCTCCATTCAGAAGT
TTGTGCCCTACCTCATAGCAGGGATCCAGCATGGCTGCCAGGATATTGGGGCCCAAAGCCTATCTGTCCT
GCGATCCATGATGTACTCAGGAGAGCTCAAGTTTGAGAAGCGGACCATGTCGGCCCAGATTGAGGGTGGC
GTGCACGGCCTACACTCTTACGAGAAGCGGCTGTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

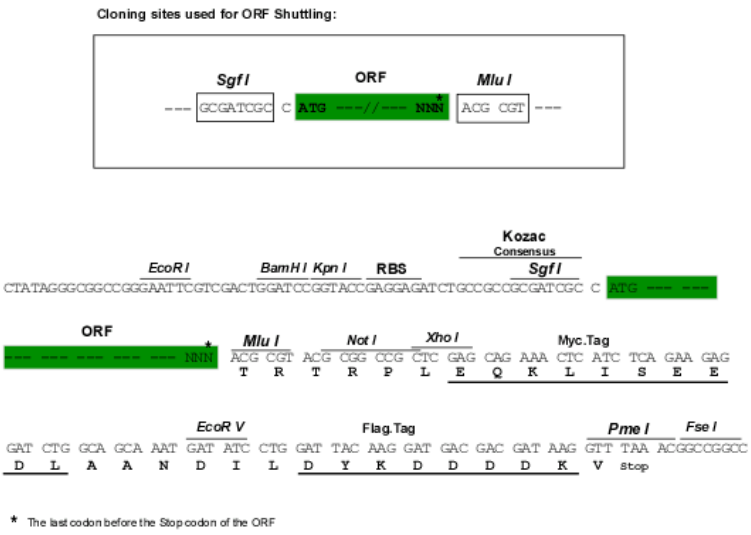
>MR230551 representing NM_001302933
Red=Cloning site Green=Tags(s)

MEEPLSPPPESGLLSPLLQGGGAAAAPEPGARQHPGHETAAQRYSARLLQAGYEPESSMADYLISGGTGY
VPEDGLTAQQLFANADGLTYNDFLILPGFIDFIADEVDLTSALTRKITLKTPLISSPMDTVTEADMAIAM
ALMGGIGFIHHNCTPEFQANEVRKVKKFEQGFITDPVVLSPSHTVGDVLEAKIQHGFSGIPITATGTMGS
KLVGIVTSRDIDFLAEKDHTTLLSEVMTPRVELVVAPAGVTLKEANEILQRSKKGKLPIVNDQDELVAII
ARTDLKKNRDYPLASKDSHKQLLCGAAVGTREDDKYRLDLLTQAGADVIVLDSSQGNSVYQIAMVHYIKQ
KYPHLQVIGGNVVTAAQAKNLIDAGVDGLRVGMGCGSICITQEVMACGRPQGTAVYKVAEYARRFGVPVI
ADGGIQTVGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKKYRGMGSLDAMEKSSSSQKRYFS
EGDKVKIAQGVSGSIQDKGSIQKFVPYLIAGIQHGCQDIGAQSLSVLRSMMYSGELKFEKRTMSAQIEGG
VHGLHSYEKRLY

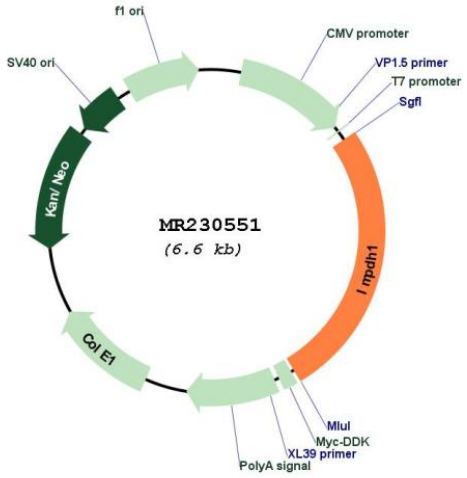
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001302933

ORF Size: 1716 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_001302933.1, NP_001289862.1
RefSeq Size:	2620 bp
RefSeq ORF:	1719 bp
Locus ID:	23917
UniProt ID:	P50096
Cytogenetics:	6 A3.3
MW:	61.7 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]