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Product datasheet for RC215206

IMPDH1 (NM_000883) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPDH1 (NM_000883) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IMPDH1
Synonyms:	IMPD; IMPD1; IMPDH-I; LCA11; RP10; sWSS2608
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC215206 representing NM_000883
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGGGGCCACTCACTCCACCACCGCTGCAGGGAGGCGGAGCCGCCGCTGTTCCGGAGCCCGGAGCCC
GGCAACACCCGGGACACGAGACGGCGGCGCAGCGGTACAGCGCCCGACTGCTGCAGGCCGGCTACGAGCC
CGAGAGCCCTAGATTGGACCTCGCTACACACCCGACGACACCCCGTTCAGAACTATCTTCAGTGGTCTTA
CTGGCAGGTGTTGGTGTCCAGATGGATCGCCTTCGCAGGGCTAGCATGGCGGACTACCTGATCAGCGGCG
GCACCGGCTACGTGCCCGAGGATGGGCTCACCGCGCAGCAGCTCTTCGCCAGCGCCGACGGCCTCACCTA
CAACGACTTCCTGATTCTCCCAGGATTCATAGACTTCATAGCTGATGAGGTGGACCTGACCTCAGCCCTG
ACCCGGAAGATCACGCTGAAGACGCCACTGATCTCCTCCCCCATGGACACTGTGACAGAGGCTGACATGG
CCATTGCCATGGCTCTGATGGGAGGTATTGGTTTCATTCACCACAACTGCACCCCAGAGTTCCAGGCCAA
CGAGGTGCGGAAGGTCAAGAAGTTTGAACAGGGCTTCATCACGGACCCTGTGGTGCTGAGCCCCTCGCAC
ACTGTGGGCGATGTGCTGGAGGCCAAGATGCGGCATGGCTTCTCTGGCATCCCCATCACTGAGACGGGCA
CCATGGGCAGCAAGCTGGTGGGCATCGTCACCTCCCGAGACATCGACTTTCTTGCTGAGAAGGACCACAC
CACCCTCCTCAGTGAGGTGATGACGCCAAGGATTGAACTGGTGGTGGCTCCAGCAGGTGTGACGTTGAAA
GAGGCAAATGAGATCCTGCAGCGTAGCAAGAAAGGGAAGCTGCCTATCGTCAATGATTGCGATGAGCTGG
TGGCCATCATCGCCCGCACCGACCTGAAGAAGAACCGAGACTACCCTCTGGCCTCCAAGGATTCCCAGAA
GCAGCTGCTCTGTGGGGCAGCTGTGGGCACCCGTGAGGATGACAAATACCGTCTGGACCTGCTCACCCAG
GCGGGCGTCGACGTCATAGTCTTGGACTCGTCCCAAGGGAATTCGGTGTATCAGATCGCCATGGTGCATT
ACATCAAACAGAAGTACCCCCACCTCCAGGTGATTGGGGGGAACGTGGTGACAGCAGCCCAGGCCAAGAA
CCTGATTGATGCTGGTGTGGACGGGCTGCGCGTGGGCATGGGCTGCGGCTCCATCTGCATCACCCAGGAA
GTGATGGCCTGTGGTCGGCCCCAGGGCACTGCTGTGTACAAGGTGGCTGAGTATGCCCGGCGCTTTGGTG
TGCCCATCATAGCCGATGGCGGCATCCAGACCGTGGGACACGTGGTCAAGGCCCTGGCCCTTGGAGCCTC
CACAGTGATGATGGGCTCCCTGCTGGCCGCCACTACGGAGGCCCCTGGCGAGTACTTCTTCTCAGACGGG
GTGCGGCTCAAGAAGTACCGGGGCATGGGCTCACTGGATGCCATGGAGAAGAGCAGCAGCAGCCAGAAAC
GATACTTCAGCGAGGGGGATAAAGTGAAGATCGCACAGGGTGTCTCGGGCTCCATCCAGGACAAAGGATC
CATTCAGAAGTTCGTGCCCTACCTCATAGCAGGCATCCAACACGGCTGCCAGGATATCGGGGCCCGCAGC
CTGTCTGTCCTTCGGTCCATGATGTACTCAGGAGAGCTCAAGTTTGAGAAGCGGACCATGTCGGCCCAGA
TTGAGGGTGGTGTCCATGGCCTGCACTCTTACGAAAAGCGGCTGTAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC215206 representing NM_000883
Red=Cloning site Green=Tags(s)

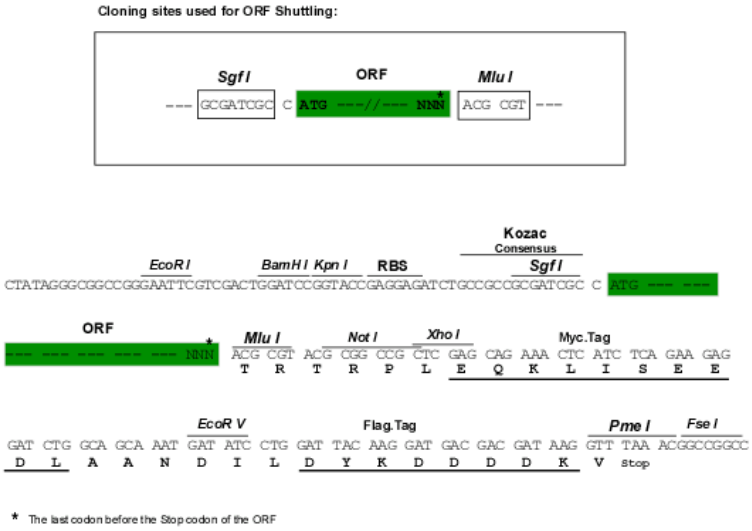
MEGPLTPPPLQGGGAAAVPEPGARQHPGHETAAQRYSARLLQAGYEPESPRLDLATHPTTPRSELSSVVL
LAGVGVQMDRLRRASMADYLISGGTGYVPEDGLTAQQLFASADGLTYNDFLILPGFIDFIADEVDLTSAL
TRKITLKTPLISSPMDTVTEADMAIAMALMGGIGFIHHNCTPEFQANEVRKVKKFEQGFITDPVVLSPSH
TVGDVLEAKMRHGFSGIPITETGTMGSKLVGIVTSRDIDFLAEKDHTTLLSEVMTPRIELVVAPAGVTLK
EANEILQRSKKGKLPIVNDCDELVAIIARTDLKKNRDYPLASKDSQKQLLCGAAVGTREDDKYRLDLLTQ
AGVDVIVLDSSQGNSVYQIAMVHYIKQKYPHLQVIGGNVVTAAQAKNLIDAGVDGLRVGMGCGSICITQE
VMACGRPQGTAVYKVAEYARRFGVPIIADGGIQTVGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDG
VRLKKYRGMGSLDAMEKSSSSQKRYFSEGDKVKIAQGVSGSIQDKGSIQKFVPYLIAGIQHGCQDIGARS
LSVLRSMMYSGELKFEKRTMSAQIEGGVHGLHSYEKRLY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6160_h09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_000883

ORF Size: 1797 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_000883.4

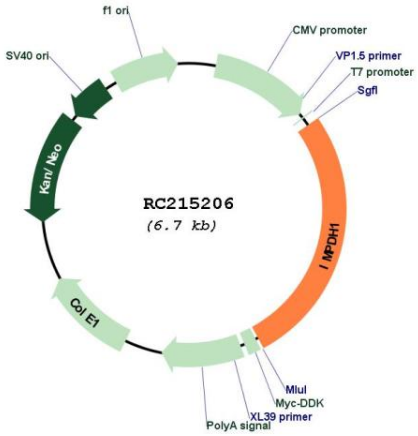
RefSeq Size: 2880 bp

RefSeq ORF: 1800 bp

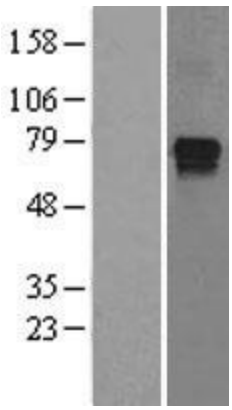
Locus ID: 3614

UniProt ID:	P20839
Cytogenetics:	7q32.1
Domains:	CBS, IMPDH
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism
MW:	64.1 kDa
Gene Summary:	The protein encoded by this gene acts as a homotetramer to regulate cell growth. The encoded protein is an enzyme that catalyzes the synthesis of xanthine monophosphate (XMP) from inosine-5'-monophosphate (IMP). This is the rate-limiting step in the de novo synthesis of guanine nucleotides. Defects in this gene are a cause of retinitis pigmentosa type 10 (RP10). Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2008]

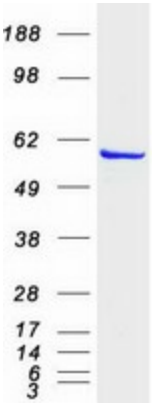
Product images:



Circular map for RC215206



Western blot validation of overexpression lysate (Cat# [LY400315]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215206 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IMPDH1 protein (Cat# [TP315206]). The protein was produced from HEK293T cells transfected with IMPDH1 cDNA clone (Cat# RC215206) using MegaTran 2.0 (Cat# [TT210002]).