

Product datasheet for **SC119938**

UMPS (NM_000373) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UMPS (NM_000373) Human Untagged Clone
Tag:	Tag Free
Symbol:	UMPS
Synonyms:	OPRT
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119938 sequence for NM_000373 edited (data generated by NextGen Sequencing)

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ATGGCGGTTCGCTCGTGCAGCTTTGGGGCCATTGGTGACGGGTCTGTACGACGTGCAGGCT
TTCAAGTTTGGGGACTTCGTGCTGAAGAGCGGGCTTTCTCCCCATCTACATCGATCTG
CGGGGCATCGTGTCTCGACCGCTTTCTGAGTCAGGTTGCAGATATTTTATTCCAAACT
GCCCAAAATGCAGGCATCAGTTTTGACACCGTGTGTGGAGTGCCTTATACAGCTTTGCCA
TTGGCTACAGTTATCTGTTCAACCAATCAAATTTCCAATGCTTATTAGAAGGAAAGAAACA
AAGGATTATGGAACCTAAGCGTCTTGTAGAAGGAACTATTAATCCAGGAGAAACCTGTTTA
ATCATTGAAGATGTTGTCAACAGTGGATCTAGTGTGTTTGGAAACTGTTGAGGTTCTTCAG
AAGGAGGGCTTGAAGTCACTGATGCCATAGTGTGTTGGACAGAGAGCAGGGAGGCAAG
GACAAGTTGCAGGCGCACGGATCCGCCTCCACTCAGTGTGTACATTGTCCAAAATGCTG
GAGATTCTCGAGCAGCAGAAAAAGTTGATGCTGAGACAGTTGGGAGAGTGAAGAGGTTT
ATTCAGGAGAATGCTTTGTGGCAGCGAATCATAATGGTCTCCCTTTCTATAAAGGAA
GCACCAAAGAACTCAGCTTCGGTGCACGTGCAGAGCTGCCAGGATCCACCCAGTTGCA
TCGAAGCTTCTCAGGCTTATGCAAAAGAAGGAGACCAATCTGTGTCTATCTGCTGATGTT
TCACTGGCCAGAGAGCTGTTGCAGCTAGCAGATGCTTTAGGACCTAGTATCTGCATGCTG
AAGACTCATGTAGATATTTTGAATGATTTACTCTGGATGTGATGAAGGAGTTGATAACT
CTGGCAAAATGCCATGAGTTCTTGATATTTGAAGACCGGAAGTTTGCAGATATAGGAAAC
ACAGTGAAAAAGCAGTATGAAGGAGGTATCTTTAAAATAGCTTCTCGGCAGATCTAGTA
AATGCTCACGTGGTGCCAGGCTCAGGAGTTGTGAAAGGCTGCAAGAAGTGGGCCTGCCT
TTGCATCGGGGTGCCTCCTTATTGCGGAAATGAGCTCCACCGGCTCCCTGGCCACTGGG
GACTACACTAGACAGCGGTTAGAATGGCTGAGGAGCACTCTGAATTTGTTGTTGTTTTT
ATTTCTGGCTCCCGAGTAAGCATGAAACCAGAATTTCTTCACTTCACTCCAGGAGTTGAG
TTGGAAGCAGGAGGAGATAATCTTGGCCAACAGTACAATAGCCCAAGAAGTTATTGGC
AAACGAGGTTCCGATATCATCATTGTAGGTCGTGGCATAATCTCAGCAGCTGATCGTCTG
GAAGCAGCAGAGATGTACAGAAAAGCTGCTTGGGAAGCGTATTTGAGTAGACTTGGTGTT
TGA
    
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Clone variation with respect to NM_000373.3

5' Read Nucleotide Sequence:

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>OriGene 5' read for NM_000373 unedited
GTCAGAATTTGTATACGACTCCTATAGGGCGGCCGCGATTTCGGCAGGAGCCTCGTGCCGA
ATTCGGCAGGAGGAGGCAGCGCGGACAATGGCGGTTCGCTCGTGCAGCTTTGGGGCCATT
GGTGACGGGTCTGTACGACGTGCAGGCTTTCAAGTTTGGGGACTTCGTGCTGAAGAGCGG
GCTTTCTCCCCATCTACATCGATCTGCGGGGCATCGTGTCTCGACCGCTTCTCTGAG
TCAGGTTGCAGATATTTTATTCCAAACTGCCCAAAATGCAGGCATCAGTTTTGACACCGT
GTGTGGAGTGCCTTATACAGCTTTGCCATTGGCTACAGTTACTGTTCAACCAATCAAAT
TCCAATGCTTATTAGAAGGAAAGAAACAAGGATTATGGAACCTAAGCGTCTTGTAGAAGG
AACTATTAATCCAGGAGAAACCTGTTTAATCATTGAAGATGTTGTCAACAGTGGATCTAG
TGTTTTGGAAACTGTTGAGGTTCTTCAGAAGCTGGGCTTGAAGGTCACTGATGCCATAGT
GCTGTTGGACAGAGAGCAGGGAGGCAAGGACAAGTTGCAGGCGCACGGATCCGCCTCCA
CTCAGTGTGTACATTGTCCAAAATGCTGGAGATTCTCGAGCAGCAGAAAAAGTTGATGC
TGAGACAGTTGGGAGAGTGAAGAGGTTTATTCAGGAGAATGCTTTGTGCCAGCGAATCA
TAATGGTTCTCCCTTTCTATAAAGGAAGCACCCCAAAGAACTCAGCTTTCTGTTGCACGT
GCCAAAGCTGCCAGGGATCCACCCAGTTGCATCGAAAGCTTCTCAAGCTTATGCAAAA
GGAAGGAGACCAATCTGGNCTATCTGCTGATGTTTCACTGGCCAGAGNACTGNTGCAGC
TAACAGATGCTTTAGACA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_000373 unedited GGACCGCGGGCCCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTGAAGCTTAAAAAT GAACTTATTATAGTATCAATGCGGTGATTACAAATTACTCAATATTTCTAAAGACCATG AGAAGCTCCAGAACCCATTCTTACACAGGCCCTGTGGAAGAATCCAAGCAGGAATAATTGG ATTATTTCCAGCCAGTGACTTTTCAGGGGACCACATATCTCAATGTCTTCACATTGTATC TGAAAAATGTATCTGAAGCACTCAAACACCAAGTCTACTCAAATACGCTTCCCAAGCAGC TTTTCTGTACATCTCTGCTGCTCCAGACGATCAGCTGCTGAGATTATGCCACGACCTAC AATGATGATATCGGAACCTCGTTTGCCAATAACTTCTTGTGGGCTATTGTACTGTTGGCC AAGATTATCTCCTCCTGCTTCCAAGTCAACTCCTGGAGTCAAGTGAAGAAATTCTGGTTT CATGCTTACTCGGGAGCCAGAAATAAAACCAACAACAAATTCAGAGTGCTCCTCAGCCAT TCTAACCGCTGCTCTAGTGTAGTCCCAAGTGGCCAGGGAGCCGGTGGAGCTCATTTCGC AATAAGGAGGCACCCCGATGCAAAGGCAGGCCCACTTCTGCAGGCCTTTCACAACCTC TGAGCCTGGCACCACGTGAGCATTTACTAGATCTGCCAGGAAGCTATTTTAAAGATAACC TCCTAAGAAGAAGGGGAAAAAAGATATTTGCTGATTTTCAACAAAACCTCTAACCCCTC TGTCACCAACCAACTANCATATGAAATNAATCTCCAGTNACATGTTAATGGAGAGATCA AAACTCTTCAGGAACCTNTAGTGATATCAGCAGACCCATGGTTCCATCTGTGAAACTGTA TCTGTTATTCAGGTAAGTANCTGGGTGAN
Restriction Sites:	NotI-NotI
ACCN:	NM_000373
Insert Size:	3630 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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:	<u>NM_000373.1</u> , <u>NP_000364.1</u>
RefSeq Size:	2244 bp
RefSeq ORF:	1443 bp
Locus ID:	7372
UniProt ID:	<u>P11172</u>
Cytogenetics:	3q21.2
Domains:	Pribosyltran, OMPdecase
Protein Families:	Druggable Genome

Protein Pathways: Drug metabolism - other enzymes, Metabolic pathways, Pyrimidine metabolism

Gene Summary: This gene encodes a uridine 5'-monophosphate synthase. The encoded protein is a bifunctional enzyme that catalyzes the final two steps of the de novo pyrimidine biosynthetic pathway. The first reaction is carried out by the N-terminal enzyme orotate phosphoribosyltransferase which converts orotic acid to orotidine-5'-monophosphate. The terminal reaction is carried out by the C-terminal enzyme OMP decarboxylase which converts orotidine-5'-monophosphate to uridine monophosphate. Defects in this gene are the cause of hereditary orotic aciduria. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Mar 2010]

Transcript Variant: This variant (1) encodes the functional protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.