

Product datasheet for **RC201324**

UMPS (NM_000373) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	UMPS (NM_000373) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	UMPS
Synonyms:	OPRT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC201324 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGTGCTCGTGCAGCTTTGGGGCCATTGGTGACGGGTCTGTACGACGTGCAGGCTTCAAGTTTG
 GGGACTTCGTGCTGAAGAGCGGGCTTTCCTCCCCATCTACATCGATCTGCGGGGATCGTGTCTGACC
 CGGTCTTCTGAGTCAGGTTGCAGATATTTTATTCCAAACTGCCAAAATGCAGGCATCAGTTTTGACACC
 GTGTGTGGAGTGCCTTATACAGCTTTGCCATTGGCTACAGTTATCTGTTCAACCAATCAAATCCAAATGC
 TTATTAGAAGGAAAGAAACAAAGGATTATGGAATAAGCGTCTTGTAGAAGGAATTAATCCAGGAGA
 AACCTGTTAATCATTGAAGATGTTGTACCAGTGGATCTAGTGTGGAAACTGTTGAGGTTCTTCAG
 AAGGAGGCTTGAAGTCACTGATGCCATAGTGTGTTGGACAGAGAGCAGGGAGGCAAGGACAAGTTGC
 AGGCGCACGGATCCGCCTCCACTCAGTGTGTACATTGCCAAAATGCTGGAGATTCTCGAGCAGCAGAA
 AAAAGTTGATGCTGAGACAGTTGGGAGAGTGAAGAGGTTTATTCAGGAGAATGTCTTTGTGCAGCGAAT
 CATAATGGTTCTCCCCTTCTATAAAGGAAGCACCCAAAGAACTCAGCTTCGGTGCACGTGCAGAGCTGC
 CCAGGATCCACCCAGTTGCATCGAAGCTTCTCAGGCTTATGCAAAAAGAAGGAGACCAATCTGTGTCTATC
 TGCTGATGTTTACTGGCCAGAGAGCTGTTGCAGCTAGCAGATGCTTTAGGACCTAGTATCTGCATGCTG
 AAGACTCATGTAGATATTTGAATGATTTACTCTGGATGTGATGAAGGAGTTGATAACTCTGGCAAAAT
 GCCATGAGTCTTGATATTTGAAGACCGGAAGTTTGCAGATATAGGAAACACAGTGAAAAAGCAGTATGA
 AGGAGGTATCTTAAAAAGCTTCTGGCAGATCTAGTAAATGCTCACGTGGTCCAGGCTCAGGAGTT
 GTGAAAGGCTGCAAGAAGTGGGCTGCCTTTCATCGGGGTGCCTCCTATTGCGGAAATGAGCTCCA
 CCGGCTCCCTGGCCACTGGGACTACACTAGAGCAGCGTTAGAATGGCTGAGGAGCACTGAATTTGT
 TGTGGTTTTATTCTGGCTCCCGAGTAAGCATGAAACCAGAATTTCTTCACTTGACTCCAGGAGTTTCAG
 TTGGAAGCAGGAGGAGATAATCTTGCCAACAGTACAATAGCCCAAGAAGTTATTGGCAACGAGGTT
 CCGATATCATATTGTAGGTCGTGGCATAATCTCAGCAGCTGATCGTCTGGAAGCAGCAGAGATGTACAG
 AAAAGCTGCTTGGGAAGCGTATTTGAGTAGACTTGGTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201324 protein sequence
 Red=Cloning site Green=Tags(s)

MAVARAALGPLVTGLYDVQAFKFGDFVLKSLSSPIYIDLRGIVSRPRLLSQVADILFQTAQNAGISFDT
 VCGVPYALPLATVICSTNQIPMLIRRKETKDYGTKRLVEGTINPGETCLIIEDVVTSGSSVLETVEVLQ
 KEGLKVTDAIVLLDREQGKDKLQAHGIRLHSVCTL SKMLEILEQQKVD AETVGRVKRFIQENVFVAAN
 HNGSPLSIKEAPKELSFARAELPRIHPVASKLLRLMQKKTNLCL SADVSLARELLQLADALGPSICML
 KTHVDILNDFTLDMKELITLAKCHEFLIFEDRKFADIGNTVKKQYEGGIFKIASWADLVNAHVVP GSGV
 VKGLQEVGLPLHRGCLLIAEMSSTGSLATGDYTRAAVRMAEEHSEFVVGFI SGRSRVSMKPEFLH LTPGVQ
 LEAGGDNLGQQYNPQEVIGKRGSIIIVGRGII SAADRLEAAEMYRKAWEAYLSRLGV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6409_e04.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_000373

ORF Size: 1440 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_000373.4](#)
RefSeq Size: 6738 bp

RefSeq ORF: 1443 bp

Locus ID: 7372

UniProt ID: [P11172](#)
Cytogenetics: 3q21.2

Domains: Pribosyltran, OMPdecase

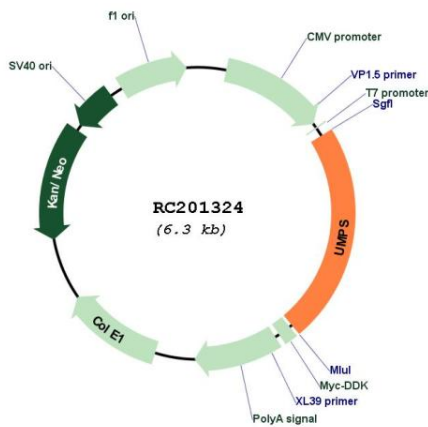
Protein Families: Druggable Genome

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

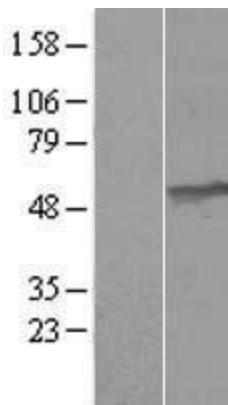
MW: 52.2 kDa

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]

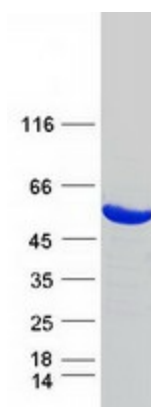
Product images:



Circular map for RC201324



Western blot validation of overexpression lysate (Cat# [LY424757]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201324 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified UMPS protein (Cat# [TP301324]). The protein was produced from HEK293T cells transfected with UMPS cDNA clone (Cat# RC201324) using MegaTran 2.0 (Cat# [TT210002]).