

Product datasheet for **RC233466**

ATPCKMT (NM_001258388) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATPCKMT (NM_001258388) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATPCKMT
Synonyms: FAM173B; hFAM173B; JS-2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC233466 representing NM_001258388
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGGAGGAGGAGGTATACCCCTAGAAACACTTAAAGAAGAAAGTCAGTCAAGACATGTTCTACCTG
CAAGTTTTGAAGTCAACAGTTTGCAGAAAAGCAACTGGGGTTCTTACTTACTGGCTTGTGGGTGGCAC
CCTGGTGGCTGTGTACGCTGTAGCCACGCCGTTTGTAAACGCCAGCCCTTCGAAAAGTCTGTTTGCCGTTT
GTACCTGCAACTACGAAGCAGATTGAAAATGTTGTGAAAATGTTGCGATGCCGAAGAGGATCCCTTGTGG
ACATCGGTAGTGGGACGGACGCATTGTCATAGCGGCTGCGAAGAAAGGGTTCACAGCAGTTGGTTATGA
ATTAAACCATGGCTAGTTTGGTATTCCAGATACCGCGCTTGGCGAGAAGGTGTGCATGGATCTGCCAAA
TTTTATATTTTCAATTTGTGGAAGATGCTGCAAGTTGGAGAAGAACTTGAACGTGAACCTGAGGATGATG
CACGAGTTATTGCTTGCCTGTTCCCTTTCCACATTGGACTCCAGACCACGTCACGGGGGAGGGGATAGA
CACAGTGTGGGCATATGATGCAAGCACTTTTAGAGGCCGTGAAAAGAGGCCCTGTACATCGATGCATTTT
CAGCTGCCATTCAAGCA

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC233466 representing NM_001258388
Red=Cloning site Green=Tags(s)

MEGGGGIPLLETLKEESQSRHVLPA SFEVNSLQKSNWGFLLTGLVGGTLVAVYAVATPFVTPALRKVCLPF
 VPATTKQIENVVKMLRCRRGSLVDIGSGDGRIVIAAAKKGFTAVGYELNPWLWVYSRYRAWREGVHGS AK
 FYISDLWKMLQLEKKLERELEDDARVIACRFPFPHWTPDHVTGEGIDTVWAYDASTFRGREKR PCTSMHF
 QLP IQA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_001258388

ORF Size: 648 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_001258388.1](#), [NP_001245317.1](#)

RefSeq Size: 2621 bp

RefSeq ORF: 651 bp

Locus ID: 134145

UniProt ID: [Q6P4H8](#)

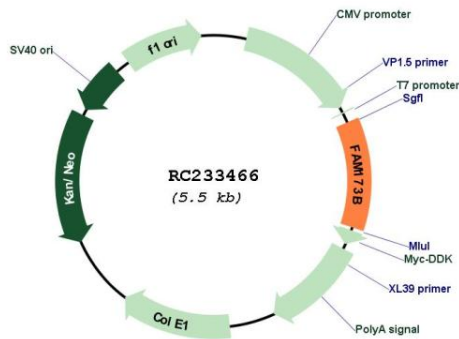
Cytogenetics: 5p15.2

Protein Families: Druggable Genome, Transmembrane

MW: 24.7 kDa

Gene Summary: Mitochondrial protein-lysine N-methyltransferase that trimethylates ATP synthase subunit C, ATP5MC1 and ATP5MC2. Trimethylation is required for proper incorporation of the C subunit into the ATP synthase complex and mitochondrial respiration (PubMed:29444090, PubMed:30530489). Promotes chronic pain (PubMed:29444090). Involved in persistent inflammatory and neuropathic pain: methyltransferase activity in the mitochondria of sensory neurons promotes chronic pain via a pathway that depends on the production of reactive oxygen species (ROS) and on the engagement of spinal cord microglia (PubMed:29444090).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC233466