

## Product datasheet for **RG209093**

### ATPCKMT (NM\_199133) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATPCKMT (NM_199133) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ATPCKMT
Synonyms:	FAM173B; hFAM173B; JS-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209093 representing NM_199133 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGGGAGGAGGAGGTATACCCCTAGAAACACTTAAAGAAGAAAGTCAGTCAAGACATGTTCTACCTG  
CAAGTTTTGAAGTCAACAGTTTGCAGAAAAGCAACTGGGGTTCTTACTTACTGGCTTGTGGGTGGCAC  
CCTGGTGGCTGTGTACGCTGTAGCCACGCCGTTTGTAAACGCCAGCCCTTCGAAAAGTCTGTTTGCCATTT  
GTACCTGCAACTATGAAGCAGATTGAAAATGTTGTGAAAATGTTGCGATGCCGAAGAGGATCCCTTGTGG  
ACATCGGTAGTGGGACGGACGCATTGTCATAGCGGCTGCGAAGAAAGGGTTCACAGCAGTTGGTTATGA  
ATTAAACCATGGCTAGTTTGGTATTCCAGATACCGCGCTTGGCGAGAAGGTGTGCATGGATCTGCCAAA  
TTTTATATTTTCAATTTGTGGAAGTTACTTTTTTCGCACTACTCGAACGTTGTTATTTTCGGTGTGCCTC  
AGATGATGCTGCAGTTGGAGAAGAACTTGAACGTGAACTTGAAGGATGATGCACGAGTTATTGCTTGCCG  
GTTCCCTTTCCACATTGGACTCCAGACCACGTACGGGGGAGGGGATAGACACAGTGTGGGCATATGAT  
GCAAGCACTTTTAGAGGCCGTGAAAAGAGGCCCTGTACATCGATGCATTTCCAGCTGCCATTCAAGCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

**Protein Sequence:** >RG209093 representing NM\_199133  
Red=Cloning site Green=Tags(s)

MEGGGGIPELTKEESQSRHVLPA SFEVNSLQKSNWGFLLTGLVGGTLVAVYAVATPFVTPALRKVCLPF  
 VPATMKQIENVVKMLRCRRGSLVDIGSGDGRIVIAAAKKGFTAVGYELNPWLWVYSRYRAWREGVHGS AK  
 FYISDLWKVTF SQYSNVVIFGVPQMMLQLEKKLERELEDDARVIACRFPFPHWTPDHVTGEGIDTVWAYD  
 ASTFRGREKR PCTSMHFQLPIQA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_199133

**ORF Size:** 699 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\\_199133.1](#), [NP\\_954584.1](#)

**RefSeq Size:** 1839 bp

**RefSeq ORF:** 702 bp

**Locus ID:** 134145

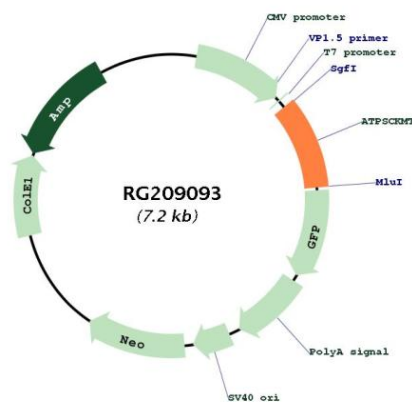
**UniProt ID:** [Q6P4H8](#)

**Cytogenetics:** 5p15.2

**Protein Families:** Druggable Genome, Transmembrane

**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 RG209093