

Product datasheet for RC203847

ATPBD3 (CTU1) (NM_145232) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATPBD3 (CTU1) (NM_145232) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ATPBD3
Synonyms:	ATPBD3; NCS6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC203847 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCGCCCGCGTGCCTCCTGCCATGCTGCACGCGCCGCCCTCCGCCGTCGCTCTCGGGCCAAG
CGCTGTGCGGTGCCTGCTTCTGCGCCGCTTCGAGGCGGAGGTGCTGCACACGGTCTCGCCGGCCGCT
GCTGCCCGCCGGCGCGTGGTGGCCGTGGGCGCCTCGGGCGCAAGGACTCCACGGTCTGGCGCACGTG
AGGCGCGCTGGCGCCGCGCTGGGCATCTACTGCAGCTCGTGGCCGTCGATGAGGGCATCGGTGGCT
ACCGGGACGCGGCTGGCGGCCGTGCGGCCAGGCGGTGCGCTGGGAGCTGCCGCTCACGGTCTGGC
CTACGAAGACCTCTTTGGGGCTGGACGATGGACGCCGTGGCCCGCAGCAGCCGGCTCCGGCCGAGC
CGCTCCTGCTGCACCTTCTGTGGAGTGCTGCGGCCCGGGCGCTGGAGGAAGGGGCGCGCCGCTGGGAG
CCACGCACATCGTGACAGGTCAACCGCCGACGACATGGCGGAGACCGTCTCATGAACCTCCTACGGGG
CGACGCGGGGCGGCTGGCCCGGGGCGGGGCTGGGCTCTCCCGCGAGGGGGGCGCCCTGCCGCGCTGC
CGCCCGCTGCAGTTCCCTCGCAGAAAGGAGGTGGTGTACGCGCACTCCGCCGCTCGACTACTTCT
CCGAGGAGTGCCTACGCGCCGAGGCCTCCGCGCCACGCCCGGGACCTGCTCAAGCGCTGGAGGC
GGCGCGCCGTCGCGGTGCTGGACCTCGTGCCTGCGCCGAGCGCTGGCGTGGCCCCGGCCGCGCGG
CCCCCGCCCCGGCGCCTGCTCCGCTGTGGGCGCTGGCCAGCCGCGCCTGCCCAGGCTGCGCGC
TCCTGGACGCGCTGAACCGCGGCCGCCCGCCGCTGGCCATCGGCAAGGGCCCGGGGTCTGGACGAGGA
GGCGACGCCGGGACGCCCGGGATCCGGCCCGGCCCGCCCTCCAAGCGCTCCACCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC203847 protein sequence
Red=Cloning site Green=Tags(s)

MPAPPCASCHAARAALRRPLSGQALCGACFCAAFEAEVLHTVLGRLLPPGAVVAVGASGGKDSTVLAHV
 RRALAPRLGISLQLVAVDEGIGGYRDAALAAVRRQAVRWELPLTVVAYEDLFGGWTMDAVARSTAGSGRS
 RSCCTFCGVLRRRALEEGARRVGATHIVTGHNADDMAETVLMNFLRGDAGRLARGGGLGSPGEGGALPRC
 RPLQFASQKEVLYAHFRRLDYFSEECVYAPEAFRGHARDLLKRLEAARPSAVLDLVHSAERLALAPAAR
 PPRPGACSRGALASRALCQACALLDGLNRGRPLAIGKRRGLDEEATPGTGPDPARPPASKAVPTF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6864_f09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_145232

ORF Size: 1044 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_145232.2](#), [NP_660275.1](#)

RefSeq Size: 2107 bp

RefSeq ORF: 1047 bp

Locus ID: 90353

UniProt ID: [Q7Z7A3](#)

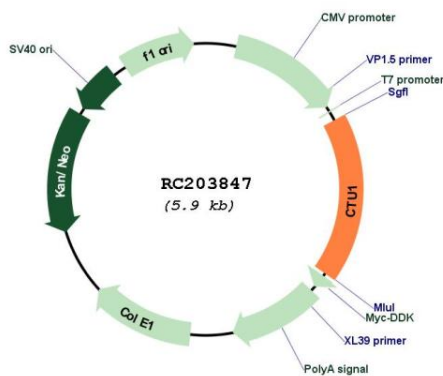
Cytogenetics: 19q13.41

Domains: ATP_bind3

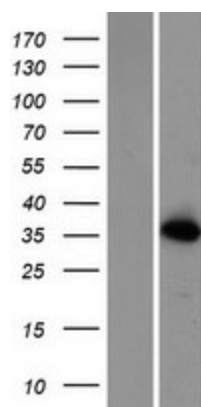
MW: 36.5 kDa

Gene Summary: Plays a central role in 2-thiolation of mcm(5)S(2)U at tRNA wobble positions of tRNA(Lys), tRNA(Glu) and tRNA(Gln). Directly binds tRNAs and probably acts by catalyzing adenylation of tRNAs, an intermediate required for 2-thiolation. It is unclear whether it acts as a sulfurtransferase that transfers sulfur from thiocarboxylated URM1 onto the uridine of tRNAs at wobble position.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC203847



Western blot validation of overexpression lysate (Cat# [LY407969]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203847 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).