

Product datasheet for **RC200292**

ATP5MC1 (NM_005175) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP5MC1 (NM_005175) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ATP5MC1
Synonyms: ATP5A; ATP5G; ATP5G1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC200292 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCAGACCGCCGGGCATTATTCATTTCTCCAGCTCTGATCCGCTGTTGTACCAGGGTCTAATCAGGC
CTGTGTCTGCCTCCTTCTTGAATAGCCAGTGAATTCATCTAAACAGCCTTCTACAGCAACTTCCCACT
CCAGGTGGCCAGACGGGAGTTCCAGACCAGTGTGTCTCCGGGACATTGACACAGCAGCCAAGTTTATT
GGTGTGGGGCAGCCACAGTTGGTGTGGCTGGTTCAGGGGCTGGCATTGGAACCGTGTGGCAGCTTGA
TCATTGGCTATGCCAGGAACCTTCTCTCAAGCAGCAGCTCTTCTCCTATGCCATTCTTGGCTTTGCCCT
GTCTGAGGCCATGGGGCTTTTCTGTTTGATGGTCGCCTTCTCATCTCTTCGCCATG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC200292 protein sequence
Red=Cloning site Green=Tags(s)

MQTAGALFISPALIRCCTRGLIRPVSASFVNSPVNSKQPSYSNFPLQVARREFQTSVVSIRDIDTAAKFI
GAGAATVGVAGSGAGIGTVFGSLIIGYARNPSLKQQLFSYAILGFALSEAMGLFCLMVAFILFAM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

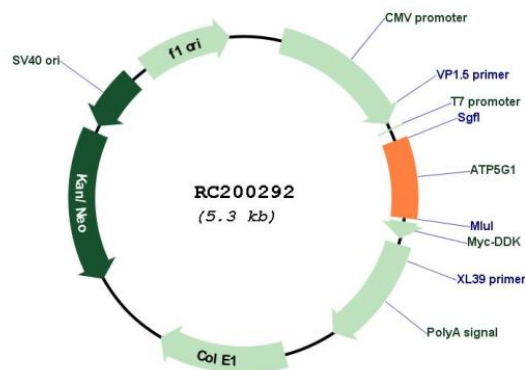
Chromatograms: https://cdn.origene.com/chromatograms/mk6082_d01.zip

Restriction Sites: SgfI-MluI



[View online >](#)

Cloning Scheme:

Plasmid Map:


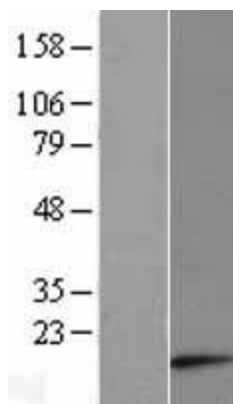
ACCN: NM_005175

ORF Size: 408 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:	<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:	NM_005175.3
RefSeq Size:	663 bp
RefSeq ORF:	411 bp
Locus ID:	516
UniProt ID:	P05496
Cytogenetics:	17q21.32
Domains:	ATP-synt_C
Protein Families:	Transmembrane
Protein Pathways:	Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease
MW:	14.3 kDa
Gene Summary:	This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel seems to have nine subunits (a, b, c, d, e, f, g, F6 and 8). This gene is one of three genes that encode subunit c of the proton channel. Each of the three genes have distinct mitochondrial import sequences but encode the identical mature protein. Alternatively spliced transcript variants encoding the same protein have been identified. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY417466]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200292 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).