

Product datasheet for **RG200292**

ATP5MC1 (NM_005175) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ATP5MC1 (NM_005175) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: ATP5MC1
Synonyms: ATP5A; ATP5G; ATP5G1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200292 representing NM_005175
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGACCGCCGGGCATTATTCATTTCTCCAGCTCTGATCCGCTGTTGTACCAGGGTCTAATCAGGC
CTGTGCTGCCTCCTTCTTGAATAGCCAGTGAATTCATCTAAACAGCCTTCCTACAGCACTTCCCACT
CCAGGTGGCCAGACGGGAGTTCAGACCAGTGTGTCTCCGGGACATTGACACAGCAGCCAAGTTTATT
GGTGTGGGCAGCCACAGTTGGTGTGGCTGGTTCAGGGGCTGGCATTGGAACCGTGTGGCAGCTTGA
TCATTGGCTATGCCAGGAACCTTCTCTCAAGCAGCAGCTCTTCTCTATGCCATTCTTGGCTTTGCCCT
GTCTGAGGCCATGGGGCTTTTCTGTTTGATGGTCGCTTCCTCATCTCTCGCCATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200292 representing NM_005175
Red=Cloning site **Green**=Tags(s)

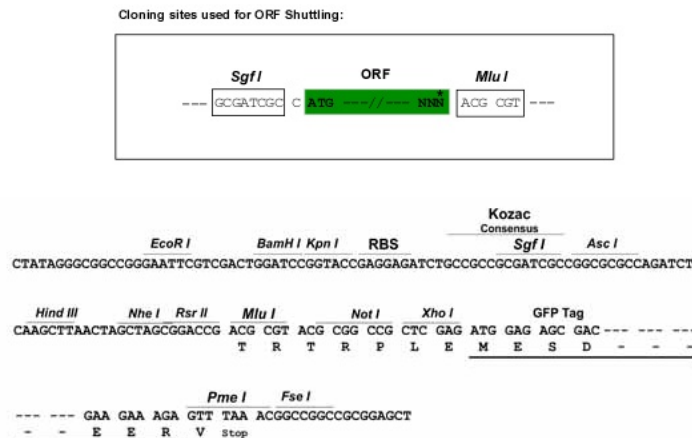
MQTAGALFISPALIRCCTRGLIRPVSAFLNSPVNSSKQPSYSNFPLQVARREFQTSVVSRDIDTAAKFI
GAGAATVGAGSGAGIGTVFGSLIIGYARNPSLKQQLFSYAILGFALSEAMGLFCLMVAFLILFAM

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

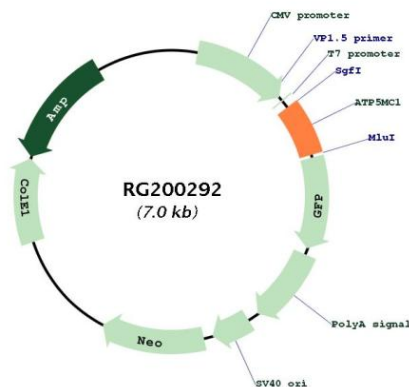
RefSeq: [NM_005175.2](#), [NP_005166.1](#)

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

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, F_o, 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:



Circular map for RG200292