

## Product datasheet for **RG223873**

### **ATP5F1C (NM\_005174) Human Tagged ORF Clone**

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | ATP5F1C (NM_005174) Human Tagged ORF Clone                                  |
| Tag:                      | TurboGFP  |
| Symbol:                   | ATP5F1C   |
| Synonyms:                 | ATP5C; ATP5C1; ATP5CL1  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-AC-GFP (PS100010)   |
| E. coli Selection:        | Ampicillin (100 ug/mL)  |
| ORF Nucleotide Sequence:  | >RG223873 representing NM_005174<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCTCTCGCGGGTGTGCTGGGCTGTGCGCCTGGACCTTGACGCCGAATGGATTCAAGTTCGAA  
ATATGGCAACTTTGAAAGATATCACCAGGAGACTAAAGTCCATCAAAAACATCCAGAAAATTACCAAGTC  
TATGAAAATGGTAGCGGCAGCAAATATGCCCGAGCTGAGAGAGAGCTGAAACCAGCTCGAATATATGGA  
TTGGGATCTTTAGCTCTGTATGAAAAAGCTGATATCAAGGGCCCTGAAGACAAGAAGAAACACCTCCTTA  
TTGGTGTGTCCTCAGATCGAGGACTGTGTGGTGTATTTCCTCCATTGCTAAACAGATGAAAAGCGA  
GGTTGCTACACTAACAGCAGCTGGGAAAGAAGTTATGCTTGTGGAATTGGTGACAAAATCAGAGGCATA  
CTTTATAGGACTCATTCTGACCAGTTTCTGGTGGCATTCAAGAAGTGGGAAGAAAGCCCCCACTTTTG  
GAGATGCGTCAGTCATTGCCCTTGAATTAATAAATCTGGATATGAATTTGATGAAGGCTCCATCATCTT  
TAATAAATTCAGGTCTGTCTCCTATAAGACAGAAGAAAGCCATCTTTCCCTTAATACCGTTGCA  
AGTGCTGACAGCATGAGTATCTATGACGATATTGATGCTGACGTGCTGCAAAATTACCAAGAATACAATC  
TGGCCAACATCATCTACTACTCTCTGAAGGAGTCCACCACTAGTGAGCAGAGTGCCAGGATGACAGCCAT  
GGCAAATGCCAGCAAGAATGCTTCTGAGATGATTGACAAATTGACATTGACATTCACCCGTACCCGCCAA  
GCTGTCATCAGAAAAGAGTTGATTGAAATTATCTCTGGTGTGTCAGCTCTG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG223873 representing NM\_005174  
 Red=Cloning site Green=Tags(s)

MFSRAGVAGLSAWTLQPQWIQVRNMATLKDITRRLKSIKNIQKITKSMKMVAAAKYARAERELKPARIYG  
 LGSLALYEKADIKGPEDKKKHL LIGVSSDRGLCGAIHSSIAKQMKSEVATLTAAGKEVMLVGIGDKIRGI  
 LYRTHSDQFLVAFKEVGRKPPTFGDASVIALELLNSGYEFDEGSIIFNKFRSVISYKTEEKPIFSLNTVA  
 SADSMSIYDDIDADVLQNYQEYNLANIIYYSLKESTTSEQSARMTAMDNASKNASEMIDKLLTLFNRTRQ  
 AVITKELIEIISGAAAL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005174

**ORF Size:** 891 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\\_005174.3](#)

**RefSeq Size:** 1125 bp

**RefSeq ORF:** 894 bp

**Locus ID:** 509

**UniProt ID:** [P36542](#)

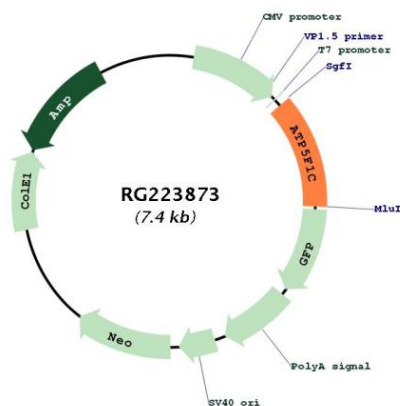
**Cytogenetics:** 10p14

**Domains:** ATP-synt

**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, 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 consists of three main subunits (a, b, c). This gene encodes the gamma subunit of the catalytic core. Alternatively spliced transcript variants encoding different isoforms have been identified. This gene also has a pseudogene on chromosome 14. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG223873