

## Product datasheet for **RC220723**

### ATP6V1G2 (NM\_138282) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ATP6V1G2 (NM\_138282) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** ATP6V1G2  
**Synonyms:** ATP6G; ATP6G2; NG38; VMA10  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >NM\_138282 ORF sequence, RC220723 may differ due to SNPs.  
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGCGCGCCGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGGTGGAGCAATACCGCAGAGAGCGAGAGCACGAATTCAGAGCAAGCAGCAGGCGGCCATGGGC
TCCCAGGGGAACCTGTCTGCTGAGGTGGAGCAGGCTACAAGGCGCCAGGTGCAGGGCATGCAGAGCTCC
CAGCAGAGAAACCGAGAGCGTGTCTGGCCAGCTTCTTGGCATGGTCTGCGACGTCAGGCCCCAGGTC
CACCCCAACTACCGGATTTCTGCC
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Protein Sequence:** >Peptide sequence encoded by RC220723  
Blue=ORF Red=Cloning site Green=Tag(s)

```
MEVEQYRREREHEFQSKQQAAMGSQGNLSAEVEQATRRQVQGMQSSQQRNRERVLAQLLGMVCDVRPQV
HPNYRISA
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

Recombinant protein using RC220723 also available, [TP320723M](#)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_138282

**ORF Size:** 231 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:**

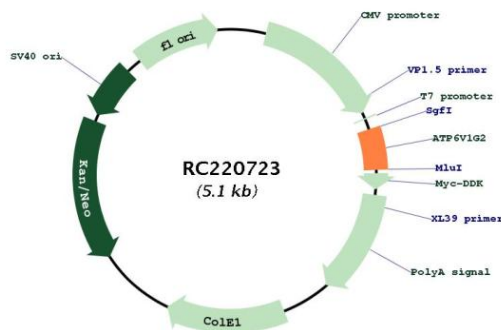
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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\\_138282.3](#)

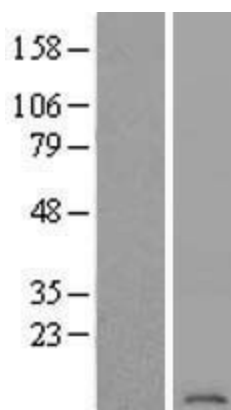
**RefSeq Size:** 1350 bp

RefSeq ORF:	234 bp
Locus ID:	534
UniProt ID:	<a href="#">O95670</a>
Cytogenetics:	6p21.33
Domains:	V-ATPase_G
Protein Pathways:	Epithelial cell signaling in Helicobacter pylori infection, Metabolic pathways, Oxidative phosphorylation, Vibrio cholerae infection
MW:	9 kDa
Gene Summary:	<p>This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of intracellular compartments of eukaryotic cells. V-ATPase dependent acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c'', and d. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This encoded protein is one of three V1 domain G subunit proteins. This gene had previous gene symbols of ATP6G and ATP6G2. Alternatively spliced transcript variants encoding different isoforms have been described. Read-through transcription also exists between this gene and the downstream DEAD (Asp-Glu-Ala-Asp) box polypeptide 39B (DDX39B) gene. [provided by RefSeq, Feb 2011]</p>

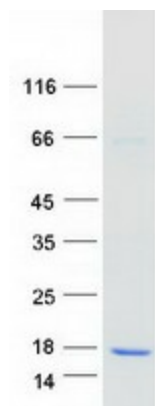
**Product images:**



Circular map for RC220723



Western blot validation of overexpression lysate (Cat# [LY408719]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220723 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP6V1G2 protein (Cat# [TP320723]). The protein was produced from HEK293T cells transfected with ATP6V1G2 cDNA clone (Cat# RC220723) using MegaTran 2.0 (Cat# [TT210002]).