

Product datasheet for **MR209449**

Atp6v1a (NM_007508) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atp6v1a (NM_007508) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atp6v1a
Synonyms:	A1647066; Atp6a1; Atp6a2; Atp6v1 a1; VA68; VPP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209449 representing NM_007508
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATTCTCCAAGCTACCCAAAATCCGCGATGAGGATAAAGAAAGTACATTTGGTTATGTGCATGGAG
 TCTCAGGGCCTGTGGTTACAGCCTGTGACATGGCGGGCGCTGCCATGTACGAGCTGGTGAGAGTGGGGCA
 CAGCGAGCTGGTTGGAGAAATTATTCGATTGGAAGGTGACATGGCCACCATTAGGTGTATGAAGAGACT
 TCTGGTGTCTCTGTTGGAGACCCGTACTCCGCACTGGTAAACCTCTCTCGGTCGAGCTGGGTCCCGGGA
 TTATGGGAGCCATTTTGGTATACAGAGACCTCTGTCGGATATCAGCAGTCAGACCCAAAGTATCTA
 CATCCCCAGAGGAGTCAATGTGTCTGCTCTCAGCAGAGATATCAAATGGGAGTTTATACCCAGCAAAAAC
 CTACGGGTTGGTAGTCATCACTGGTGGAGACATTTATGGGATTGTCAATGAGAACTCCCTCATCAAAC
 AAAAAATCATGTTGCCCCACGTAACAGAGGAAGCGTGACTTACATCGCGCCGCTGGGAATTATGATGC
 GTCGGATGTCGCTGGAGCTTGAGTTGAAGGTGTGAAGGAGAAGTTCAGCATGGTCCAAGTGTGGCCT
 GTGCGGCAAGTGGCGCCTGTCACTGAGAAGCTGCCCGCAATCACCCCTTGTACTGGCCAGAGAGTCC
 TCGATGCCCTTTCCCGTGTGTTCAAGGAGAACTACTGCTATCCAGGCGCCTTTGGCTGTGAAAGAGC
 TGTGATTTCCAGTCTCTATCCAAGTACTCCAACAGTGACGTCATCATCTATGTCGGCTGCGGTGAGAGA
 GGCAACGAGATGTCAGAAGTTCTCCGCGACTCCCTGAGCTCACCATGGAGGTTGATGGGAAAGTAGAGT
 CCATCATGAAGAGGACAGCGCTGGTAGCCAACACCTCCAACATGCCTGTGGCTGCAAGAGAGGCCTCCAT
 CTACACTGGAATTACACTATCAGAATATTTCCGTGACATGGGCTACCACGTCAGTATGATGGCGGACTCT
 ACCTCTAGATGGGCTGAGGCCCTCAGAGAAATCTCTGGTCGTTAGCTGAGATGCCTGCAGATAGTGGAT
 ACCCTGCATACCTTGGTGCCCGCTGGCTTCTTTCTATGAGCGAGCAGGCAGAGTAAAATGTCTTGGAAA
 CCCTGAGAGAGAAGGGAGTGTGAGCATTGTAGGAGCAGTTTCTCCACCTGGTGGTATTTTCTGATCCA
 GTCACCTCTGCAACTCTGGGTATTGTTCAAGGTGTTCTGGGGCTTGATAAGAAGTTAGCTCAGCGCAAGC
 ACTTCCCCTCTGTCAACTGGCTCATCAGCTACAGCAAGTACATGCGTGCCTGGACGAGTACTATGACAA
 GCACCTTACGGAGTTTGTCTCTGAGGACCAAAGCTAAGGAGATCCTGCAGGAAGAAGAGGATCTGGCA
 GAAATCGTGCAGCTCGTGGGAAAGGCTCTTTAGCAGAGACGGATAAAATCACTCTGGAGGTAGCAAAAAC
 TTATTAAGATGACTTCTACAGCAAAAATGGGTACACTCCTTATGACAGGTTCTGTCCATTCTACAAGAC
 AGTGGGGATGCTCCAACATGATTTTCTATGACATGGCCCGCGAGCTGTGGAGACCCTGCCAG
 AGTGACAATAAGATCACATGGTCCATTATCCGGGAGCACATGGGGGAGATTCTCTATAAACTCTCCTCCA
 TGAATTAAGGATCCAGTGAAGATGGCGAGGCAAGATCAAGGCCGACTATGCACAGCTTCTGAAGA
 TATGCAGAATGCATTCCGTAGCCTGAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209449 representing NM_007508
 Red=Cloning site Green=Tags(s)

MDFSKLPKIRDEDKESTFGYVHGVSGPVVTAACDMAGAAMYELVRVGHSELVGEIIRLEGDMATIQQVYEET
 SGVSVGDPVLRGTGKPLSVELGPGIMGAIFDGIQRPLSDISSQTQSIYIPRGVNVLSALSRDIKWEFIPSKN
 LRVGSHITGGDIYGI V NENSLIKHKIMLPPRNRGSVTYIAPPGNYDASDVVLELEFEGVKEKFSMVQVWP
 VRQVRPVTEKLPANHPLLTGQRVLDALFPCVQGGTTAIPGAFGCKTVISQSLSKYSNSDVIIYVGCGER
 GNEMSEVLRDFPELTMEVDGKVESIMKRTALVANTSNMPVAAREASIYTGITLSEYFRDMGYHVSMMADS
 TSRWAEALREISGRLAEMPADSGYPAYLGARLASFYERAGRVKCLGNPEREGSVSIVGAVSPPGGDFSDP
 VTSATLGI V QVFWGLDKKLAQRKHFPVSNWLISYSKYMRALDEYYDKHFTEFVPLRTRKAKEILQEEEDLA
 EIVQLVGKASLAETDKITLEVAKLIKDDFLQQNGYTPYDRFCPFYKTVGMLSNMISFYDMARRAVETTAQ
 SDNKITWSIIREHMGEILYKLSMKFKDPVKDGEAIKADYAQLLEDQMNAFRSLED

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007508

ORF Size: 1851 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_007508.2](#)

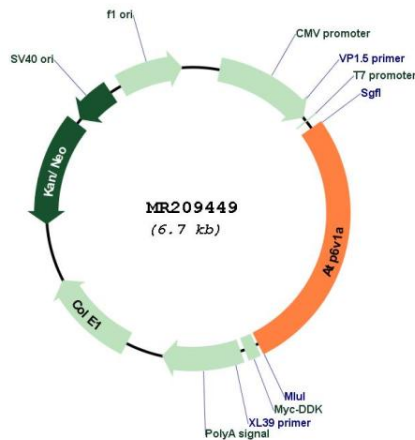
RefSeq Size: 3947 bp

RefSeq ORF: 1854 bp

Locus ID: 11964
UniProt ID: [P50516](#)
Cytogenetics: 16 B4
MW: 68.8 kDa

Gene Summary: Catalytic subunit of the peripheral V1 complex of vacuolar ATPase. V-ATPase vacuolar ATPase is responsible for acidifying a variety of intracellular compartments in eukaryotic cells. In aerobic conditions, involved in intracellular iron homeostasis, thus triggering the activity of Fe(2+) prolyl hydroxylase (PHD) enzymes, and leading to HIF1A hydroxylation and subsequent proteasomal degradation. May play a role in neurite development and synaptic connectivity. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209449