

## Product datasheet for MR220827

### Atp1a4 (NM\_013734) Mouse Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: Atp1a4 (NM\_013734) Mouse Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: Atp1a4  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >MR220827 representing NM\_013734  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGAGCCTGAAAAGAAAAGGAGGTAGAGGCCCTGGTGAAGCTGAATCAGAAACCAAGACCCAGCACCA  
 GGTCCCTCAACTACAAATAGACAGCCGAAAATGAAAAGAAGGAAGAAAAGATTTAGAAGAGCTGAAGAAGGA  
 AGTGGTTATGGATGATCACAAGCTAACGTTGGATGAGCTGAGTGCCAAGTACTCTGTGGACTTGACCAAG  
 GGCTTAGCATCTAGAAGCCAGGATATTCTGTTTCAAATGGACCGAATGACTAACTCCTCCTCCAA  
 CCATCCAGAGTGGTCAAATCTGTAGACAACCTGTTGGTGGCTTCTCCCTCTACTGTGGACTGGTGC  
 CTGTCTCTGCTTCTGGCCTATGGCATACATGTAATATTACAAGAAAACGCCAACAAAGATAATCTG  
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 GCTCCAAGATCATGGAGTCTTTAAGAACATGGTGCCTCAGCAAGCTCTGGTGATTTCGAGATGGAGAGAA  
 AATGCAAATCAATGTAAGAGATGTGGTTTTGGGAGACCTAGTAGAGGTGAAGGGAGGAGACCAAATCCCT  
 GCTGATACAGGGTTATCTCGGCGCAAGGATGCAAGGTAGACAATTCCTCCTTGACTGGGGAGTCAGAAC  
 CCCAGTCTCGCTGCCCTGATTGCACTCATGAGAACCCTCTGGAGACACGGAATATCATCTTCTTCCAC  
 TAACTGTGTAGAAGGAACAGCTCGGGTATTGTGATTGCTACAGGAGACTACACAGTAATGGGCCGATT  
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 ACTGTGTGCTGACGCTGACCGCAAGCGCATGGCTCGCAAGAACTGCCTGGTGAAGAACCTGGAGGCCG  
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 AGTGGCGCATTTGTGGTTTGATAAGACTGTGTATGAGGCCGACACCAAGTGAAGGAGCAAACACGGGGAAA  
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 TGCTGCTAATGAAAGGTGCCCCAGAGAGGATCTTTGATTTTTGCTCCAGTTTCTGCTGAATGGGCAGGA



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GTACCCTATGGATGAGGAAATGAAGATGGACTTCCAGAATGCCTACATAGAAGCTGGGAGGTCTGGGCGAA  
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 CCAGGCATGGATGTGTCCTGCGGATGTACCCACTCAAGATAAAGTGGTGGTTCTGCGCACTTCCCTACA  
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 GAAGGAGACGTACTAC

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGAT AAGTTTAA

**Protein Sequence:** >MR220827 representing NM\_013734  
 Red=Cloning site Green=Tags(s)

MEPGKEKEVEAPGELNQP RPSTRSSTNRQPKMKRRKKDLEELKKEVVMDDHKLTLDELSAKYSVDLTK  
 GLSILEAQDILFQNGPNVLT PPTTPPEWVKCRQLFGGFLLLWTGAACFLAYGIHVNYKANKNDNL  
 YLGI VLSAVV IITGCF SYQEA KSKIMESFKNMV PQQALVIRDGEKMQINVRDVVLGDLVEVKGGDQIP  
 ADIRVISAQGCKVDNSSLTGESE PQSRCPDCTHENPLETRNI IFFSTNCVEGTARGIVIATGDYVMGRI  
 ASLTSGLQMGKTP IATEIEHF IHLITAVAVFLGVSFFWLSIILGYTWLDAVIFLIGIIVANVPEGLLATV  
 TVCLTLAKRMARKNCLVKNLEAVETL GSTSTICSDKTGTLTQNRMTVAHLWFDKTVYEADTSEEQTGK  
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 IPFNSTNKYQMSIHLLEDNSEAHVLLMKGAPERIFDFCSSFLLNGQEYPMDEEMKMDFNAYIELGGLGE  
 RVLGFCFLNLP SNF SKGFQFNTDELNFP MENLCFAGLISMIDPPRTAVPDAVSKCRSAGIKVIMVTGDHP  
 ITAKAIAKSVGII SEGNDTAEDIAARLNIPISQVNNKSVKAI VVHGSELKDMESQQLDDILKSYKEIVFA  
 RTSPQQKLIIVEGCQRLGAI VAVTGDGVNDSPALKKADIGIAMGITGSDVSKQAADMILLDDNFASIVTG  
 VEEGR LIFDNLKKSIA YTLT SNIP EITPFLFIILSIPLPLGITILCIDLGTDMVPAISLAYESPESDI  
 MKRLPRNPKTDNLVNNRLIGMAYQIGMIQALAGFFTYFVILAENGFKPLDLLGIRLYWDDTQLNDLEDS  
 YGQQWTYEQRKVVEFTCQT AFFISIVIVQWADLI ICKTRRNSLFKQGMKNKILIFGLLEETVLA AFLSYV  
 PGM DVSLRMYPLKINWWFCALPYSVLIFVYDEIRKLIIRRRPGGWLEKETYY

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9095\\_c04.zip](https://cdn.origene.com/chromatograms/mm9095_c04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_013734

**ORF Size:** 3096 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_013734.1](#), [NP\\_038762.1](#)

**RefSeq Size:** 3485 bp

**RefSeq ORF:** 3099 bp

**Locus ID:** 27222

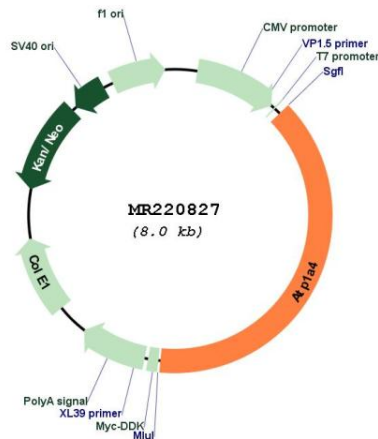
**UniProt ID:** [Q9WV27](#)

**Cytogenetics:** 1 79.54 cM

**MW:** 114.9 kDa

**Gene Summary:** This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients. Plays a role in sperm motility (By similarity). [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR220827