

## Product datasheet for **MC229428**

### Atp8a1 (NM\_001284345) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Atp8a1 (NM\_001284345) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Atp8a1  
**Synonyms:** AI481521; AI853962; APLT; Atp3a2; AW743152; AW822227; B230107D19Rik; ClassI  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC229428 representing NM\_001284345  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCCGACCATGCGGAGGACAGTGTCCGAGATCCGCTCGCGCGGGAAGTTATGAGAAGACAGATGATG  
TTTCAGAGAAGACCTCGCTGGCAGATCAGGAGGAAGTGAAGAACCATCTTCATCAACCAGCCTCAGCTGAC  
AAAATTCGCAACAACCACGTCAGTACTGCAAAATACAACGTGATCACATTCCTCCGAGGTTCCCTCTAT  
TCTCAGTTCGGAAGCGGCTAATTCGTTCTTTCTTTATTGCCCTGCTCCAGCAAATTCCTGATGTGT  
CGCCGACCGGTCTTACACAACACTGGTTCCTCTCTTATTTATTTAGCTGTGGTGCTATTAAGAGAT  
AATAGAAGATATTAACGACACAAGGCTGATAATGCTGTGAACAAGAAACAGACACAAGTTTTGAGAAAT  
GGTGATGGGAAATTTGTTCACTGGGAAAAGGTAATGTTGGAGATATAGTTATAATAAAGGCAAAGAGT  
ATATACCTGTGACACTGTCTTCTCTCGTCAAGTGAAGCCAGGCCATGTGCTACATCGAGACATCCAA  
CTTAGATGGTGAACAACTTGAATTTAGACAAGGCTTACCGGAACATCGGATATCAAAGACATTGAC  
AGTTTGATGAGAATTTCTGGCAGAATCGAGTGTGAAAGTCAAACCGACATCTCTACGATTTTGTGGGA  
ACATAAGGCTTGATGGCCATGGCACCGTTCCTCGGGGACAGACAGATCCTTCTCCGAGGAGCTCAGT  
AAGAAATACCCAGTGGTTCATGGGATAGTTGTCTACACTGGCCACGACCAAGCTGATGCAGAATTCC  
ACAAGCCACCCTTAACTCTCAATGTGGAACGGATTACAAATGTACAAATCTGATTTTATTTTGCA  
TCTTAATTGCCATGTCTTGTGTGTTCTGTGGGCTCAGCCATTTGGAACCGAAGGCATTCGGGAAAGA  
CTGGTACCTCCATCTACACTATGGTGGCGCTAGTAACTTTGGACTGAACTTCTGACTTTTCATTATCCTT  
TTCAACAACCTCATTCCCATCAGCTTGTGGTCACTTAGAAGTGGTGAAGTTTACTCAGGCATACTTCA  
TAAATTTGGATCTTGACATGCATTATGAGCCACAGACACCGCAGCAATGGCTCGGACATCTAATCTGAA  
TGAGGAACCTGGCCAGGTTAAATACATATTTTCTGACAAAACCTTTAATGACCCGTCGTTGCTGGACAATCT  
CCAGAATAACCACCAACCGCACCTATCATCTGTGAATTTCTACAATGATGGCCGTCGCCACACAGCT  
GTACCGGAGAGAGAAGGGGACAAGATCATTATCAGGCTGCATCGCCAGATGAGGGTGCCTGCTGAGAG



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CCGCCAAGCAGTTGAATTTGTCTTCACTGGAAGAACTCCTGACTCTGTCATCATAGATTCACTGGGGCA
GGAAGAAAGATATGAATTGCTCAATGTCCTAGAGTTACCCAGTGTAGGAAGAGGATGTCGGTGGTGGTT
CGCACTCCATCCGGGAAGTTACGGCTCTACTGCAAAGGAGCTGACACAGTAATTTATGAACGACTTGCAG
AGACCTCAAAGTACAAAGAAATCACCCATAAACTTGGAAACAGTTTGTACAGAAGGGCTGAGGACTTT
GTGTTTTGCTGTGGCTGAGATTTCTGAGAGCGACTTCGAGGAGTGGCGGGCCGTACCACCGGCATCC
ACGTCGGTACAGAACAGGCTGCTGAAGCTGGAGGAGACTACGAACTAATTGAAAAGAATCTTCAGCTAC
TTGGAGCTACAGCCATTGAGGATAAATTGCAGGACCAAGTGCCTGAAACCATAGAAACGCTAATGAAGGC
TGACATCAAATATGGATCCTTACTGGGACAAGCAAGAACTGCCATTAAATATTGGACACTCCTGTAGA
CTCCTCAAGAGGAACATGGGAATGATCGTGATAAACGAGGGCTCTCTTGACGGCACGAGGAAAACCTCA
GCCGCCACTGCACCACCCTGGGAGATGCTCTTCGGAAGGAAAATGATTTTGTCTTATAATTGATGGGAA
GACCCCTCAAATATGCCTTAACCTTTGGCGTCCGGCAGTATTTCTGGACTTAGCTCTGCTCTGCAAAGCT
GTCATTTGCTGCAGGGTTTCTCCTTTCAGAAGTCCGAGGTTGTCGAGATGGTTAAGAAACAAGTCAAAG
TCATCACACTTGCATCGGGATGGAGCAAATGACGTGAGCATGATCCAGACGGCCCATGTGGGTGTTGG
GATAAGCGGCAATGAAGTTTGCAGGCAGCCAACCTTTCAGATTACTCCATCGCTCAGTTCAAATATTTG
AAGAATTTGTTGATGGTTCACGGTGCCTGGAATACAATAGAGTCTCAAGTGTATCCTGTACTGCTTCT
ACAAGAACATCGTCTACATCATCGAGATCTGGTTTGCCTTTTCAACGGCTTTTCTGGACAGATCCT
CTTTGAAAGATGGTGTATAGGGCTTTAATGTGATGTTACAGCGATGCCTCCCTTGACACTTGAATA
TTTGAGAGATCGTGAGAAAGGAGAATGTTGAAGTATCCTGAGTTGTACAAAACATCCAGAATGCTC
TGGACTTCAATACCAAGTTTTCTGGGTTTATTGTTTGAATGGCCTTCCACTCCGTTATTCTGTTTTG
GTTCCCACTGAAAGCCCTGCAGTATGGCAGGATTTTGGAAATGGGAAAACCTCAGATTACCTGCTTCTG
GAAACTTTGTTTATACTTTTGTAGTGATAACTGTGTGCTTGAAGCTGGACTGGAAACCTCCTATTGGA
CATGGTTCAGCCACATCGCCATCTGGGGCAGCATCGCGCTCTGGTGGTGTCTTCGGGATCTACTATC
TCTGTGGCTGCCGTGCCATGGCCCTGACATGTCGGAGAGGCAGCCATGCTCTTCAGCTTGGAGT
TTCTGGGTGGCTTGTCTCCATCCCTGTGGCGTCTTGTCTTGGATGTGCTGTACAAAGTCATCAAGA
GGACGGCCTTTAAAACCTTGTGATGAAGTTCAGGAGCTTGGAGCGAAATCTCAAGACCCGGGCGCAGT
CGTACTTGGAAAGAGCCTCACGGAGAGAGCGCAGCTGCTCAAGAAGCTTTAAGAAGAACCACGTGAAT
CTGTACCCTCCGAGTCCCTGCAGCAGAACCTGCTTACGGCTATGCTTTCTCTCAAGATGAAAACGGCA
TCGTCTCACAGTCTGAAGTCATCAGAGCCTATGACACCACGAAACAGAGGCCCGATGAGTGGTGA

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ACGGCTACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001284345
- Insert Size:** 3495 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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\\_001284345.1](#), [NP\\_001271274.1](#)

**RefSeq Size:** 8176 bp

**RefSeq ORF:** 3495 bp

**Locus ID:** 11980

**UniProt ID:** [P70704](#)

**Cytogenetics:** 5 C3.1

**Gene Summary:** Catalytic component of a P4-ATPase flippase complex which catalyzes the hydrolysis of ATP coupled to the transport of aminophospholipids from the outer to the inner leaflet of various membranes and ensures the maintenance of asymmetric distribution of phospholipids. Phospholipid translocation seems also to be implicated in vesicle formation and in uptake of lipid signaling molecules. In vitro, its ATPase activity is selectively and stereospecifically stimulated by phosphatidylserine (PS). The flippase complex ATP8A1:TMEM30A seems to play a role in regulation of cell migration probably involving flippase-mediated translocation of phosphatidylethanolamine (PE) at the plasma membrane. Acts as aminophospholipid translocase at the plasma membrane in neuronal cells; the activity is associated with hippocampus-dependent learning.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) lacks an alternate exon and contains a different alternate exon in the 5' coding region, compared to variant 1. It encodes isoform c, which is of the same size but lacks an internal segment, compared to isoform a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.