

Product datasheet for **MG216348**

Atp8a1 (NM_001038999) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	Atp8a1
Synonyms:	AI481521; AI853962; APLT; Atp3a2; AW743152; AW822227; B230107D19Rik; ClassI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >MG216348 representing NM_001038999
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGCCGACCATGCCGAGGACAGTGTCCGAGATCCGCTCGCGCGGGAAGTTATGAGAAGACAGATGATG
TTTCAGAGAAGACCTCGCTGGCAGATCAGGAGGAAGTGAAGAACATCTTCATCAACCAGCCTCAGCTGAC
AAAATCTGCAACAACCACGTCACTACTGCAAAATACAACGTGATCACATTCCTCCGAGGTTCTCTAT
TCTCAGTCCGAAGAGCGGCTAATTCGTTCTTTCTTTATGCCCCTGCCAGCAAATTCCTGATGTGT
CGCCGACCGGTCGTTACACAACACTGGTTCCTCTCTATTTATTTAGCTGTGGCTGCTATTAAGAGAT
AATAGAAGATATTAACGACACAAGGCTGATAATGCTGTGAACAAGAAACAGACACAAGTTTGGAAAAT
GGTGATGGGAAATTTGTTCACTGGGAAAAGGTGGCAGTGGGGGAGATAGTGAAGGTGACCAATGGGAAAC
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AAGAAATACCCAGTGGGTTTCATGGGATAGTTGTCTACTGGCCACGACACCAAGCTGATGCAGAATTC
ACAAGCCCACTTAACTCTCAATGTGGAACGGATTACAAATGTACAAATTCGATTTTATTTGCA
TCTTAATTGCCATGTCTCTGTGTGTTCTGTGGCTCAGCCATTTGGAACCGAAGGCATTCCGGGAAAGA
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TTCAACAACCTCATTCCATCAGCTTGCTGGTCACATTAGAAGTGGTGAAGTTTACTCAGGCATACTTCA
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CCGCCAAGCAGTTGAATTTTGTCTTCACTGGAAGAACTCCTGACTCTGTCATCATAGATTCCTGGGGCA
 GGAAGAAAGATATGAATTTGCTCAATGTCTAGAGTTCACCAAGTGTAGGAAGAGGATGTCGGTGGTGGTT
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 CTTTGAAGATGGTGTATAGGGCTTTATAATGTGATGTTACAGCGGATGCCTCCCTTGACACTTGGAAATA
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 CGTACTTGGAAAGAGCCTCACGGAGAGAGCGCAGCTGCTCAAGAACGTCTTAAAGAAGAACACGTGAAT
 CTGTACCGCTCCGAGTCCCTGCAGCAGAACCTGCTTACGGCTATGCTTTCTCTCAAGATGAAAACGGCA
 TCGTCTCACAGTCTGAAGTCAATCAGAGCCTATGACACCACGAAACAGAGGCCCGATGAGTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence:

>MG216348 representing NM_001038999

Red=Cloning site Green=Tags(s)

MPTMRRVSEIRSRAEGYEKTDVSEKTSADQEEVRTIFINQPQLTKFCNNHVSTAKYNVITFLPRFLY
 SQFRRAANSFFLFIALLQQIPDVSPTRYTTLVPLLILAVAAIKEIIEDIKRHKADNAVKNKQTQVLRN
 GAWIEIVHWEKVAVGEIVKVTNGEHLPADLLSLSSSEPQAMCYIETSNLDGETNLKIRQGLPATSDIKDID
 SLMRISGRIECESPNRHLYDFVGNIRLDGHGTPLGADQILLRGAQLRNTQVWHGIVVYTGHDTKLMQNS
 TSPPLKLSNVERITNVQILILFCILIAMSLVCSVGSATWNRHSGKDWYHLHYGGASNFGLNFLTFIIL
 FNNLIPIISLLVTLVLEVKFTQAYFINWDLDMHYEPTDTAAMARTSNLNEELGQVKYIFSDKTGLTLCNVMQ
 FKKCTIAGVAYGHVPEPEYDYGSPDEWQSSQFGDEKTFNDPSSLNLDLQNNHPTAPIICEFLTMMAVCHTA
 VPEREGDKIIYQAASPDEGALVRAAKQLNFVFTGRTPDSVIIDSLGQEERYELLNLEFTSARKRMSVVV
 RTPSGKRLRYCKGADTVIYERLAETSKYKEITLKHLEQFATEGLRTLCAVAEISESDFEWRVAVYHRAS
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 LLKRNMGMIIVINEGSLDGTRETLRHTTLDALRKENDFALIIDGKTLKYALTFGVRQYFLDLALSCKA
 VICCRVSPLOKSEVVEMVKKQVKVITLAIGDANDVSMIQTAVHVGVSIGNEGLQAANSDDYSIAQFKYL
 KNLLMVHGAWNYNRVSKCILYCFYKNIVLYIEIWFVAFVNGFSGQILFERWICGLYNVMFTAMPPLTLGI
 FERSCRKENMLKYPELYKTSQNALDFNTKVFVWHCLNGLFHSVILFWFPLKALQYGTVFNGKTSYLLLL
 GNFVYTFVVIIVCLKAGLETSYWTFSHIAIWGSIALWVFFGIYSSLWPAVPMAPDMSGEAAMLFSSGV
 FWVGLLSIPVASLLLDVLYKVIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVN
 LYRSESLQNLHGYAFSQDENGIVSQSEVIRAYDTTKQRPDEW

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001038999

ORF Size: 3492 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.

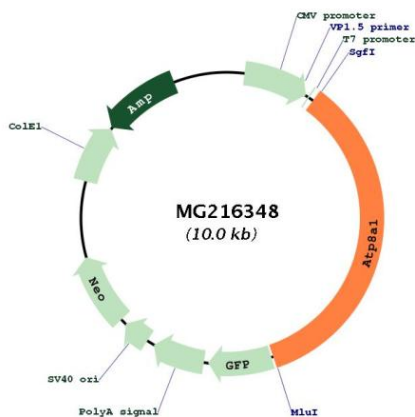
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001038999.2](#), [NP_001034088.1](#)

RefSeq Size:	8175 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]

Product images:



Circular map for MG216348