

## Product datasheet for MR231639

### Atp8a1 (NM\_001284345) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atp8a1 (NM_001284345) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atp8a1
Synonyms:	AI481521; AI853962; APLT; Atp3a2; AW743152; AW822227; B230107D19Rik; ClassI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR231639 representing NM_001284345 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGCCGACCATGCGGAGGACAGTGTCCGAGATCCGCTCGCGCGGGAAGTTATGAGAAGACAGATGATGTTTCAGAGAAGACCTCGCTGGCAGATCAGGAGGAAGTGAGAACCATCTTCATCAACCAGCCTCAGCTGACAAAATTCTGCAACAACCACGTCAGTACTGCAAAATACAACGTGATCACATTCCTCCGAGGTTCTCTATCTCAGTTCGGAAGAGCGGCTAATTCGTTCTTTCTTTTATTGCCCTGCTCCAGCAAATTCCTGATGTGTGCGCGACCGGTGTTACACAACACTGGTTCCTCTTTATTTTAGCTGTGGCTGCTATTAAGAGATAATAGAAGATATTAACGACACAAGGCTGATAATGCTGTGAACAAGAAACAGACACAAGTTTGGAGAAATGGTGATGGGAAATGTTCACTGGGAAAAGGTAATGTTGGAGATATAGTTATAATAAAGGCAAGAGATATACCTGCTGACACTGTCCTTCTCTCGTCAAGTGAAGCCAGGCCATGTGCTACATCGAGACATCCAACTTAGATGGTGAAACAACTTGAATAAGGCTTACGACAAGGCTTACCGGCAACATCGGATATCAAAGACATTGACAGTTTGTGAGAAATTTCTGGCAGAATCGAGTGTGAAAGTCAAACCGACATCTCTACGATTTTGTGGGAACATAAGGCTTGATGGCCATGGCACCGTTCCTGGGGGAGACCAGATCCTTCTCCGAGGAGCTCAGTTAAGAAATACCCAGTGGTTCATGGGATAGTTGTCTACTGACCAGACCAAGCTGATGCAGAATTCCACAAGCCACCCTAACTCTCAATGTGGAACGGATTACAAATGTACAAATTCGATTTTATTTTGGCATCTTAATTGCCATGCTCTTGTGTGTTCTGTGGGCTCAGCCATTTGGAACCGAAGGCATTCGGGAAAGA CTGGTACCTCCATCTACTATGGTGGCGCTAGTAACTTTGGACTGAACTTCTGACTTTTATTATCCTTTTCAACAACCTCATTCCCATCAGCTTGCTGGTACATTAGAAGTGGTGAAGTTTACTCAGGCATACTTCA TAAATTGGGATCTTGACATGCATTATGAGCCACAGACACCGCAGCAATGGCTCGGACATCTAATCTGAA TGAGGAACTTGGCCAGGTTAAATACATATTTTCTGACAAAACCTGGGACCCTGACATGCAATGTGATGCAG TTCAAGAAGTGCACCATCGCGGGCGTGGCTATGGCCATGTCCCTGAACCTGAGGATTATGGGTGCTCGC CCGATGAATGGCAGAGCTCACAGTTTGGAGATGAAAAACCTTTAATGACCCGTCGTTGCTGGACAACTC CAGAATAACCACCAACCGCACCTATCATCTGTAATTTCTACAATGATGGCCGTCTGCCACACAGCT



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GTACCGGAGAGAGAAGGGGACAAGATCATTTATCAGGCTGCATCGCCAGATGAGGGTGCCTGGTCAGAG  
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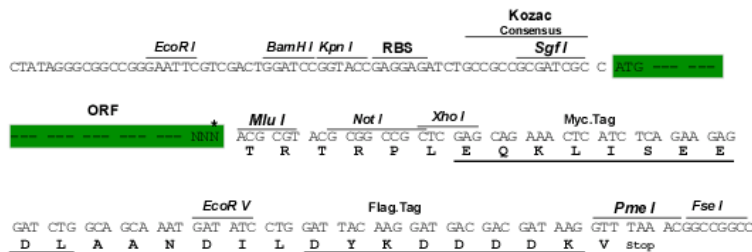
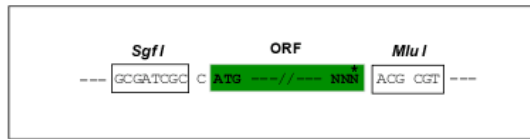
**Protein Sequence:** >MR231639 representing NM\_001284345  
 Red=Cloning site Green=Tags(s)

MPTMRRTVSEIRSRAEGYEKTDVSEKTSADQEEVTRIFINQPQLTKFCNNHVSTAKYNVITFLPRFLY  
 SQFRRAANSFFLFIALLQQIPDVSPTRGYTTLVPLLFILAVAAIKEIIEDIKRHKADNAVNKQTQVLRN  
 GAWEIVHWEKVNVDIVIKGKEYIPADTVLLSSSEPQAMCYIETSNLDGETNLKIRQGLPATSDIKDID  
 SLMRISGRIECESPNRHLYDFVGNIRLDGHGTVPLGADQILLRGAQLRNTQVWHGIVVYTGHDTKLMQNS  
 TSPPLKLSNVERITNVQILILFCILIAMSLVCSVGSIAIWNRRHSGKDWYLHLHYGGASNFGLNFLTFIIL  
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 RTPSGKLRLYCKGADTVIYERLAETSKYKEITLKHLEQFATEGLRTLCFVAEISESDFEWRVAVHRAS  
 TSVQNRLLKLEESYELIEKNLQLLGATAIEDKLQDQVPETIETLMKADIKIWILTGDKQETAINIGHSCR  
 LLKRNMGMIIVINEGSLDGTRETLRHRCTTLDALRKENDFALIIDGKTLKYALTFGVRQYFLDLALSCKA  
 VICCRVSPKQSEVVEMVKKQVKVITLAIGDGANDVSMIQTAVHGVGIGSNEGLQAANSSDYIAQFKYL  
 KNLLMVHGAWNYNRVSKCILYCFYKNIVLYIIEIWFVAFVNGFSGQILFERWCIGLYNVMFTAMPPLTLGI  
 FERSCRKENMLKYPELYKTSQNALDFNTKVFVWHCLNGLFHSVILFWFPLKALQYGVFNGKTSYDYL  
 GNFYVTFVYVITVCLKAGLETSYWTFWFSHIAIWGSIALWVFFGIYSSLWPAVPMAPDMSGEAAMLFSSGV  
 FWVGLLSIPVASLLLDVLYKVIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVN  
 LYRSESLQQLLHGAFSQDENGIVSQSEVIRAYDTTKQRPDEW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI  
**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



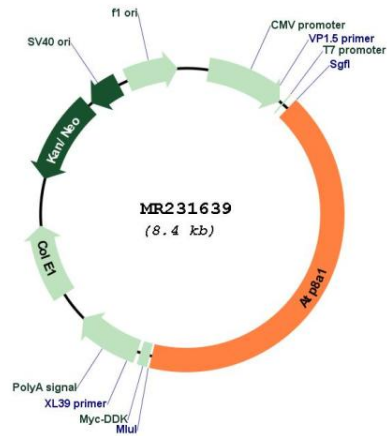
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001284345

**ORF Size:** 3492 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001284345.1</a> , <a href="#">NP_001271274.1</a>
<b>RefSeq Size:</b>	8176 bp
<b>RefSeq ORF:</b>	3495 bp
<b>Locus ID:</b>	11980
<b>UniProt ID:</b>	<a href="#">P70704</a>
<b>Cytogenetics:</b>	5 C3.1
<b>MW:</b>	132 kDa
<b>Gene Summary:</b>	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 MR231639