

## Product datasheet for **SC114195**

### ATP8A2 (NM\_016529) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ATP8A2 (NM_016529) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP8A2
Synonyms:	ATP; ATP1B; CAMRQ4; IB; ML-1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_016529 edited  
 ATGCTGAACGGCGCAGGCTGGACAAAGCTCTTAAGATGTCCTGCCGCGGAGGTCGAGG  
 ATCCGCTCGTCCGTGGGACCTGTTCTTCTTTGGGCTATAAGAAGGCAGAGGATGAG  
 ATGTCCCAGGCGCCACGTCTGTTGGAGACCAGCTGGAGGCACCCGCCGACCATTTACCTC  
 AACCAACCGCATCTCAACAAATTCCGCGACAACCAGATCAGTACGGCCAAGTACAGCGTG  
 TTGACATTTCTACCTCGATTCTGTATGAGCAGATTAGAAGAGCTGCTAATGCCTTCTTT  
 CTCTTCATTGCCTTATTACAGCAAATCCAGATGTATCTCCAACAGGAAGATATACCACC  
 CTGGTGCCATTGATCATTATTTTAAACAATTGCAGGCATCAAAGAGATTGTAGAAGATTTT  
 AAGCGACACAAGGCAGACAATGCAGTTAACAAAAAGAAAACAATAGTGTTAAGAAATGGT  
 ATGTGGCATAACCATTATGTGAAAGAGGTGGCAGTGGGAGACATTGTGAAGGTCGTCAAT  
 GGGCAGTATCTTCCAGCAGATGTGGTCTGCTGTCATCCAGTGAACCTCAGGCAATGTGT  
 TATGTTGAAACAGCTAATCTGGATGGGGAGACGAACCTTAAAATACGTACAGGTTTGAGT  
 CACACTGCTGACATGCAAACACGTGAAGTTCTGATGAAGTTATCTGGAACATAGAGTGT  
 GAAGGGCCCAACCGCCACCTCTATGACTTCACTGGAACTTGAACCTTAGATGGGAAAAGC  
 CTTGTTGCCCTTGGGCTGACCAGATCTTATTAAGAGGTACACAGCTTAGAAAATACTCAG  
 TGGGTCTTTGGCATAGTTGTTTATACTGGACACGACCAAACTCATGCAGAATTAACC  
 AAAGCGCTCTCAAGAGATCAAATGTTGAGAAGGTGACTAACGTGCAGATCCTGGTGTG  
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 TCTCATGGTGAAAAGAAGTGGTACATCAAGAAGATGGACACCCTCAGATAATTTTGGGA  
 TACAACCTACTGACGTTTATCATCTTATACAACAATCTTATTCCCATCAGTCTGTTGGTG  
 ACTCTTGAGGTTGTGAAGTATACTCAAGCCCTTTTCATAAACTGGGACACAGATATGTAT  
 TATATAGGAAATGACACTCCTGCCATGGCCAGGACATCAAACCTTAATGAAGAGCTTGGG  
 CAGGTGAAATATCTTTTCTGACAAGACTGGAACGCTTACATGCAATATCATGAACTTT  
 AAGAAGTGCAGCATTGCCGGAGTAACCTATGGTCACTCCAGAAATTGGCAAGAGAGCCG  
 TCTTCAGATGACTTCTGTCGGATGCCTCCTCCCTGTAGTGATTCTGTGACTTTGATGAC  
 CCCAGGCTGTTGAAGAACATTGAGGATCGCCATCCACAGCCCTTGCAATCAGGAGTTC  
 CTCACCCTTCTGGCCGTGTGCCACAGGTTGTTCTGAGAAGGATGGAGATAACATCATC



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TACCAGGCCTCTTCCCCAGATGAAGCTGCTTTGGTGAAGGAGCTAAAAAGCTGGGCTTT  
 GTCTTACAGCCAGAACCATTCTCAGTCATCATAGAAGCGATGGGACAGGAACAAACA  
 TTCGGAATCCTTAATGTCTGGAATTTTCTAGTGACAGAAAAAGAATGTCTGTAATTGTT  
 CGAACTCCTTCAGGACGACTTCGGCTTTACTGTAAAGGGGCTGATAATGTGATTTTTGAG  
 AGACTTTCAAAAGACTCAAAATATATGGAGGAAACATTATGCCATCTGGAATACTTTGCC  
 ACGGAAGGCTTGGGACTCTCTGTGTGGCTTATGCTGATCTCTCTGAGAATGAGTATGAG  
 GAGTGGCTGAAAGTCTATCAGGAAGCCAGCACCATTGAAGGACAGAGCTCAACGGTTG  
 GAAGAGTGTTACGAGATCATTGAGAAGAATTTGCTGCTACTTGGAGCCACAGCCATAGAA  
 GATCGCCTTCAAGCAGGAGTTCCAGAAACCATCGCAACACTGTTGAAGGCAGAAATTA  
 ATATGGGTGTTGACAGGAGACAAACAAGAACTGCGATTAATATAGGGTATTCTGCCGA  
 TTGGTATCGCAGAATATGGCCCTTATCCTATTGAAGGAGGACTCTTTGGATGCCACAAGG  
 GCAGCCATTACTCAGCACTGCACTGACCTTGGGAATTTGCTGGGCAAGGAAAAATGACGTG  
 GCCCTGATCATCGATGGCCACACCCTGAAGTACGCGCTCTCCTCGAAGTCCGGAGGAGT  
 TTCTGGATTTGGCACTCTCGTCAAAGCGGTTCATATGCTGCAGAGTGTCTCTCTGCAG  
 AAGTCTGAGATAGTGGATGTGGTGAAGAAGCGGGTGAAGGCCATCACCCCTGCCATCGGA  
 GACGGCGCAACGATGTCCGGGATGATCCAGACAGCCACGTGGGTGTGGGAATCAGTGGG  
 AATGAAGGCATGCAGGCCACCAACAACCTCGGATTACGCCATCGCAGATTTTCTACTTA  
 GAGAAGCTTCTGTTGGTTCATGGAGCCTGGAGCTACAACCGGGTGACCAAGTGCATCTTG  
 TACTGCTTCTATAAGAACGTGGTCTGTATATTATTGAGCTTTGGTTCGCCTTTGTAAAT  
 GGATTTTCTGGGAGATTTTATTGAACTGGTGCATCGGCCTGTACAATGTGATTTTC  
 ACCGCTTTGCCGCCCTTCACTCTGGGAATCTTTGAGAGGTCTTGCACTCAGGAGAGCATG  
 CTCAGGTTTCCCAGCTCTACAAAATCACCCAGAATGGCGAAGGCTTCAACACAAAGGTT  
 TTCTGGGTCACATGCAACGCCTTGGTCCACTCCCTCATCTTCTGGTTTCCCATG  
 AAAGCTCTGGAGCATGATACTGTGTTGACAAGTGGTTCATGCTACCGACTATTTATTGTT  
 GGAAATATTGTTTACACATATGTTGTTGTTACTGTTTGTCTGAAAAGCTGGTTTGGAGACC  
 ACAGCTTGGACTAAATTCAGTCATCTGGCTGTCTGGGAAGCATGCTGACCTGGCTGGTG  
 TTTTTTGGCATCTACTCGACCATCTGGCCACCATTCCATTGCTCCAGATATGAGAGGA  
 CAGGCAACTATGGTCTGAGCTCCGCACACTTCTGGTTGGGATTATTTCTGGTTCCTACT  
 GCCTGTTTGATTGAAGATGTGGCATGGAGAGCAGCCAAGCACACCTGCAAAAAGACATTG  
 CTGGAGGAGGTGCAGGAGCTGAAACCAAGTCTCGAGTCTGGGAAAAGCGGTGTGCGG  
 GATAGCAATGAAAGAGGCTGAACGAGCGCACCCTGATCAAGAGGCTGGGCCGGAAG  
 ACGCCCCGACGCTGTTCCGGGGCAGCTCCCTGCAGCAGGGCGTCCCGCATGGGTATGCT  
 TTTTCTCAAGAAGAACACGGAGCTGTTAGTCAGGAAGAAGTCATCCGTGCTTATGACACC  
 ACCAAAAAGAAATCCAGGAAGAAATAA

- Restriction Sites:** NotI-NotI
- ACCN:** NM\_016529
- Insert Size:** 3600 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:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_016529.1](#), [NP\\_057613.1](#)

**RefSeq Size:** 2177 bp

**RefSeq ORF:** 1842 bp

**Locus ID:** 51761

**UniProt ID:** [Q9NTI2](#)

**Cytogenetics:** 13q12.13

**Protein Families:** Transmembrane

**Gene Summary:** The protein encoded by this gene is a member of the P4 ATPase family of proteins, which are thought to be involved in a process called lipid flipping, whereby phospholipids are translocated inwards from the exoplasmic leaflet to the cytosolic leaflet of the cell membrane, which aids in generating and maintaining asymmetry in membrane lipids. This protein is predicted to contain an E1 E2 ATPase, a haloacid dehalogenase-like hydrolase (HAD) domain, and multiple transmembrane domains. Associations between this protein and cell cycle control protein 50A are important for translocation of phosphatidylserine across membranes. Mutations in this gene have been associated with a syndrome (CAMRQ4) characterized by cerebellar ataxia and cognitive disabilities. In addition, a translocation breakpoint within this gene was observed in an individual with neurological dysfunction. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2017]  
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). 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.