

## Product datasheet for **MG209769**

### **Atp13a2 (BC023746) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Atp13a2 (BC023746) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Atp13a2
Synonyms:	1110012E06Rik; AA589443
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209769 representing BC023746  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGCAGCACGCCCCCAGCTATGGGACCCTGACGACAGGGACGTCAATCGATCCCCTCAGCTCCTCAG  
 CTTTCATCCGTGAGGCTCAGCGGCTACTGTGGCAGTCCATGGAGGGCCATCGGCTATCACGCCGGCTCTG  
 GATGCTGGCCGGGATCCCTTGGCTGCTATTCCGCTGGAAGCCCTTGTGGGGCGTGCCTGCGCCTGAAG  
 CCATGCAGCCTGGCCACGCCGAAACACTCGTTATAGAAAATAAAAGACAAAGAGGGTAGCTCCAGACAGC  
 TCTTCACGGTTCAGGTGCAGACTGAGGCTCTGTCCAGGGCAGCCTGGAGCTGCCCCACAGGCCAGGC  
 AGAGGATGGCCGGAGCCAGGCAGCCGTTGGGAGTGACACCAGAGGGCACATGGCAGGACACCTCCGAACTC  
 CACAGGCAGGAAGAGGCAAAGCAGGTACTGCGCTATTATGTCCTCAAGGTCAACGCTACGCTGGATGG  
 AAACCCAGCAAGCCTTCTGCCAAGTCAGCCTGCTGGACCACAGTGTACCTGTGATGACGCTCCACTGCTC  
 CAGCTCCGGCCTCAGCCTCCAAGACCAAGCTACGAGGAAGACCATTTACGGCCCCAATGTGATCAGTATT  
 CCTGTCAAGTCTACCTGCAGCTGCTGGCGGATGAGGCCCTGAATCCCTACTATGGGTCCAAGCCTTCA  
 GCATCGCACTGTGGCTGGCCGACCCTACTACTGGTATGCTCTCTGCATCTTCTCATCTCAGCCATCTC  
 CATCTGCCTGGCTCTGTACAAGACCAGAAAAGCAAAGCTTGACCCTGAGGGACATGGTCAAGCTGTCCGTG  
 CGGGTGCAGGTGTGCCGACCCGGAGGAGGAAGAGTGGGTGGACTCCAGTGAGCTGGTGCCCGGAGACT  
 GCCTGGTGTGCCCGAGGAGGGCGGGGTGATGCCATGCGACGCGGCTCTGGTGGCCGGGAGTGTGTGGT  
 CAACGAGAGCTCCCTGACAGGGGAGAGCACCCCTGTGCTGAAGACGGCCCTGCCAGAGGGGCCAAAGCCC  
 TACTGCCAGAGACCCACCGCGGCACACCCCTTCTGTGGCACCCCTCATTCTGCAGGCCGAGCCTACG  
 TGGGACCCCGTGTGCTAGCAGTGGTGACTCGGACAGGGTTCGCACAGCCAAAGGGGGCCTGGTGACTC  
 CATCCTACACCCAAGGCCCATCAGCTTCAAGTTCTACAAACACAGCATGAAGTTTGTGGCTGCGCTCTCC  
 GTCCTGGCTCTGCTCGGCACCGTCTACAGCATCGTCATCCTCTACCAGAAACCGGGTACCTGTGAGGGAGA  
 TTGTGATCCGAGCTCTGGACCTGGTGCAGGTGGTGGTGCCGCCCCCCTGCCTGCCGCCATGACGGTGTG  
 CACTCTATGCCAGAGTCGGCTGCGCGCACAGGGCATCTTCTGCATCCACCCACTGCGCATCAACTTG  
 GGGGGCAAGTGCAGCTCGTGTGCTTTGACAAGACAGGCACCCCTCACAGAGGACGGCTTGGACGTAATGG  
 GCGTAGTGCCCTAAAGGGGAGGTGTTGCTGCCACTGGTCCCAGAGCCCGCCACTGCCCTGGGGCC  
 CCTCTGCGAGCACTGGCCACCTGTATGCCCTCAGCCAGCTACATGACACCCCGGTGGGCGACCCCATG  
 GATCTGAAGATGGTGGAGTCTACAGGCTGGGTCTTAGAGGAGGGTCCAGCTGCAGGCTCAGCACCTGGGA  
 GCCAGGTCTTGGTGGTAATGAGACCCCCACCGGGGCCCTCGGCAGCAGGTAAGCTGCAGAGTACTGG  
 GCCTTGGGGCCTTGGAGTGGGCCTCAGCCAGCCCTCAGCTCTCCTCCCACCCACAGGAAGACCACAG  
 TGCCAGTCAGCGTCTCTGCCGTTCCCTTCTCTGCCCCTGCAGCGGATGGATGTGG

ACGCGT**ACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG209769 representing BC023746  
 Red=Cloning site Green=Tags(s)

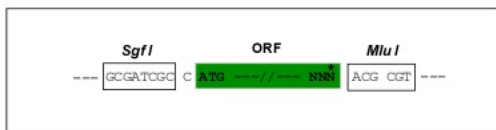
MGSTPPSYGTLTTGTSIDPLSSSASSVRLSGYCGSPWRAIGYHAAVWMLAGIPWLLFRWKPLWGVRLRLK  
 PCSLAHAETLVIEIKDKEGSSRQLFTVQVQTEALVQGSLELPPQAQAEDGRSQAAVGVTPEGTWQDTSEL  
 HRQEEAKQVLRYYVLQGQRYVWMETQAFQVSLLDHSRTCDDVHCSSSLSLQDQATRKTIIYGNVVISI  
 PVKSYLQLLADEALNPYYGFQAFSIALWLADHYWYALCIFLISAIISICLALYKTRKQSLTLRDMVKLSV  
 RVQVCRPGGEEWVDSSELVPGDCLVLPQEGVMPCDAALVAGECVVNESSLTGESTPVLKALPEGPKP  
 YCPETHRRHTLFCGTLILQARAYVGPVLA VVTRTGFCTAKGGLVSSILHPRPISFKFYKHSMKFVAALS  
 VLALLGTVYYSIVILYRNRPVREIVIRALDLVTVVVPPALPAAMTVCTLYAQSRRAQGFICIHPLRINL  
 GGKLRVCFDKTGTLTEDGLDVMGVVPLKQVLLPLVPEPRHLPLGPLLRALATCHALSQHLDTVPVGDPM  
 DLKMOVESTGWVLEEGPAAGSAPGSQVLLVMRPPPQVSCRVTGPWGLGVGLSQPLSSPPTHRSKSHQ  
 CQSASSAASPSPPLPCSGMWW

TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



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                Kozac
                Consensus
                SgfI   AscI
EcoRI   BamHI KpnI   RBS   Kozac Consensus   SgfI   AscI
CTATAGGCGCGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII   NheI   RsrII   MluI   NotI   XhoI   GFP Tag
CAAGCTTAAGTACTAGCTAGCGGACCG   ACG CGT   ACG CGG   CCG CTC GAG   ATG GAG AGC GAC -----
                T   R   T   R   P   L   E   M   E   S   D   -   -   -

                PmeI   FseI
----- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT
- - - E E R V Stop

```

ACCN: BC023746

ORF Size: 1950 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.

RefSeq: [BC023746.1](#)

RefSeq Size: 4272 bp

RefSeq ORF: 1952 bp

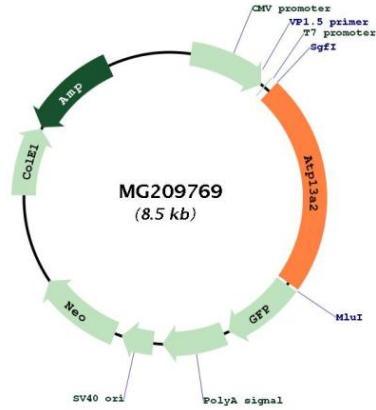
Locus ID: 74772

Cytogenetics: 4 D3

**Gene Summary:**

ATPase that plays a role in intracellular cation homeostasis and the maintenance of neuronal integrity. Required for a proper lysosomal and mitochondrial maintenance.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG209769