

Product datasheet for **MG211503**

Atp2a3 (NM_016745) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Atp2a3 (NM_016745) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Atp2a3
Synonyms: Serca3; SERCA3b
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG211503 representing NM_016745
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGAGGCGCACCTGCTCTCCGCTGCCGACGTGCTGCGTCGCTTCTCGGTGACAGCCGAGGGCGGCT
 TGAGCCTGGAGCAGGTGACCGACGCGGGGAGCGTTACGGCCCCAACGAGCTCCCAGCCAGGAAGGGAA
 ATCCCTGTGGGAGCTGGTGGTGGAGCAGTTTGGAGCCTTTGGTGCGCATCCTGCTGCTGGCAGCTCTG
 GTTTCCTTTGTCCTGGCCTGGTTCGAGGAGGGTGAGGAGACCACAACGGCCTTCGTGGAGCCCTGGTCA
 TCATGCTAATTCTCGTGGCCAATGCGATCGTGGGAGTGTGGCAGGAACGCAACGCAGAGAGTGCAATTGA
 GGCTTGAAGGAGTATGAGCCTGAGATGGGTAAGGTGATCCGGTCTGACCGCAAGGGTGTACAGAGGATC
 CGAGCCAGGGACATCGTCCCTGGGGACATTGTGGAAGTGGCAGTGGGAGACAAGGTACCCGCTGACCTCC
 GTCTCATCGAGATCAAGTCCACCACACTTCGAGTGGACCAGTCCATCCTGACAGGGGAATCCGTGTCTGT
 GACGAAGCACACAGATGCCATCCAGACCCCGAGCCGTGAACCAGGACAAGAAGAATGCTATTTTCT
 GGCACCAATATTGCATCAGGCAAAGCCCTGGGTGTGGCTGTGGCTACAGGCCTGCAGACAGAGCTGGGCA
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 CCCTGACTTGCTGGTAGAGAAGATGAATGTGTTGACACAGACCTGAAAGGACTGTCCGGGTGGAGCG
 TGCTGGCGCTGCAACTCAGTCATCAAGCAACTCATGCGAAAGAGTTACCCCTGGAGTTCTCCCGGAC



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CGGAAGTCTATGTCCGTGTACTGCACACCTACTCGTGCTGACCCCAAGGTCCAGGGCAGCAAGATGTTTTG
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 GGCTGCTTGTATCACACGCTGTTCCCGGCTGGCATTGAGTGGTCATGATCACAGGGGACAACAAGGG
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 CTGCTGTGGCCAAGTCAAGCAGAGAGATGGTGTGCTCCGATGACAACCTTTCCTCCATTGTGGTGCAGT
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 GTAGGCAGTCCGACTACTTCCAGGACCCATACCACCCGAAAAAAGGACCTGAAGTAAATCCTGG
 GAGCAGAGGGGAGTCTCCAGTGTGCCCTCAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG211503 representing NM_016745
 Red=Cloning site Green=Tags(s)

MEEAHLLSAADVLRFRSFTAEGGLSLEQVTDARERYGNELPTEEGKSLWELVVEQFEDLLVRILLAL
 VSFVLAWFEEGETTTAFVEPLVIMLILVANAIIVGVWQERNAESAIEALKEYEPEMGKVIKSDRKGVQRI
 RARDIVPGDIVEVAVGDKVPADLRLIEIKSTTLRVDQSILTGESVSVTKHTDAIPDPRAVNQDKNMLFS
 GTNIASGKALGVAVATGLQTELKIRSQMAAVEPERTPLQRKLDEFGRQLSHAISVICVAVVWINIGHFA
 DPAHGGSWLRGAVYYFKIAVALAVAAIPEGLPAVITTCALGTRRMARKNAIVRSLPSVETLGCSTVICS
 DKTGTLTTNQMSVCRMFVVAEAEAGTCRLHEFTISGTTYTPEGEVROGEQPVRCGQFDGLVELATICALC
 NDSALDYNEAKGVYKVEATETAL TCLVEKMNVDLTKGLSRVERAGACNSVIKQLMRKEFTLEFSRD
 RKSMSVYCTPTRADPKVQGSKMFVKGAPESVIERCSSVRVGSRTAPLSTTSREHILAKIRDWGSGSDTLR
 CLALATRDTPPRKEDMHLDDCSRFVQYETDLTFVGCVGMLDPPRPEVAACITRCSRAGIRVVMITGDNKG
 TAVAICRRLGIFGDTEVDL GKAYTGREFDDL SPEQQRQACRTARCFARVEPAHKSRIVENLQSFNEITAM
 TGDGVNDAPALKAEIGIAMSGTAVAKSAAEMVL SDDNFASIVAAVEEGRAIYNNMKQFIRYLISSNVG
 EVVICIFLTAILGLPEALIPVQLLWVNLVTDGLPATALGFNPPDL DIMEKPPRNPREALISGWLFFRYLAI
 GVVYGLATVAAATWWFLYDEGPQVTFYQLRNFLKCEDNPLFAGIDCKVFESRFPTTMALSVLVTIEMC
 NALNSVSENQSLLRMPPWLNWLLGAVVMSMALHFLILLVPPLPLIFQVTPLSGRQWVVLQMSLPVILL
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TRTRPLE - GFP Tag - V

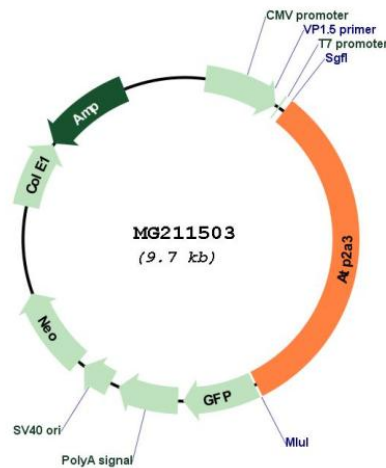
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_016745

ORF Size:

3114 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:	<ol style="list-style-type: none">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_016745.3 , NP_058025.2
RefSeq Size:	4593 bp
RefSeq ORF:	3117 bp
Locus ID:	53313
UniProt ID:	Q64518
Cytogenetics:	11 B4
Gene Summary:	This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium. Transports calcium ions from the cytosol into the sarcoplasmic/endoplasmic reticulum lumen. Contributes to calcium sequestration involved in muscular excitation/contraction.[UniProtKB/Swiss-Prot Function]