

Product datasheet for **RG220099**

SERCA3 (ATP2A3) (NM_174955) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: SERCA3 (ATP2A3) (NM_174955) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: ATP2A3
Synonyms: SERCA3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG220099 representing NM_174955
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGCGGCGCATCTGCTCCCGGCCGCCGACGTGCTGCGCCACTTCTCGGTGACAGCCGAGGGCGGCC
 TGAGCCCCGGCGCAGGTGACCGGCGCGGGAGCGCTACGGCCCCAACGAGCTCCCGAGTGAGGAAGGGAA
 GTCCTGTGGGAGCTGGTCTGGAACAGTTTGGGACCTCCTGGTGCGCATCCTGCTGCTGGCTGCCCTT
 GTCTCCTTTGCTCCTGGCCTGGTTTCGAGGAGGGCGAGGAGACCACGACCGCCTTCGTGGAGCCCTGGTCA
 TCATGCTGATCCTCGTGGCCAACGCCATTGTGGGCGTGTGGCAGGAACGCAACGCCGAGAGTGCCATCGA
 GGCCCTGAAGGAGTATGAGCCTGAGATGGCAAGGTGATCCGCTCGGACCGCAAGGGCGTGACAGAGGATC
 CGTGCCCGGGACATCGTCCCAGGGGACATTGTAGAAGTGGCAGTGGGGGACAAAGTGCCTGCTGACCTCC
 GCCTCATCGAGATCAAGTCCACCACGCTGCGAGTGGACCAGTCCATCCTGACGGGTGAATCTGTGTCCGT
 GACCAAGCACACAGAGGCCATCCCAGACCCAGAGCTGTGAACCAGGACAAGAAGAACATGCTGTTTTCT
 GGCACCAATATCACATCGGGCAAAGCGGTGGTGTGGCCGTGGCCACCGGCTGCACACGGAGCTGGGCA
 AGATCCGGAGCCAGATGGCGGCAGTCGAGCCCGAGCGGACGCCGCTGCAGCGCAAGCTGGACGAGTTTG
 ACGGCAGCTGTCCACGCCATCTCTGTGATCTGCGTGGCCGTGTGGTTCATCAACATCGGCCACTTCGCC
 GACCCGGCCACCGTGGCTCCTGGCTGCGTGGCGCTGTCTACTACTTCAAGATCGCGTGGCCCTGGCGG
 TGGCGGCCATCCCCGAGGGCCTCCCGGCTGTCACTACTATGCCTGGCACTGGGCAAGCGCGCATGGC
 ACGCAAGAACGCCATCGTGCAAGCCTGCCGTCCGTGGAGACCCTGGGCTGCACCTCAGTCATCTGCTCC
 GACAAGACGGGCACGCTCACCACCAATCAGATGTCTGTCTGCCGATGTTCTGTGTAGCCGAGGCCGATG
 CGGGCTCCTGCCTTTTGCACGAGTTCACCATCTCGGGTACCACGTATACCCCGAGGGCGAAGTGCGGCA
 GGGGGATCAGCCTGTGCGCTGCGGCCAGTTCGACGGGCTGGTGGAGCTGGCGACCATCTGCGCCCTGTGC
 AACGACTCGGCTCTGGACTACAACGAGGCCAAGGGTGTGTATGAGAAGTGGGAGAGGCCACGGAGACAG
 CTCTGACTTGCCTGGTGGAGAAGATGAACGTGTTTCGACACCGACCTGCAGGCTCTGTCCCGGTGGAGCG
 AGCTGGCGCCTGTAACACGGTCATCAAGCAGCTGATGCGGAAGGAGTTACCCCTGGAGTTCTCCCGAGAC



[View online »](#)

```

CGGAAATCCATGTCCGTGTACTGCACGCCACCCGCCCTCACCTACTGGCCAGGGCAGCAAGATGTTTG
TGAAGGGGGCTCCTGAGAGTGTGATCGAGCGCTGTAGCTCAGTCCGCGTGGGGAGCCGCACAGCACCCCT
GACCCCACTCCAGGGAGCAGATCCTGGCAAAGATCCGGGATTGGGGCTCAGGCTCAGACACGCTGCGC
TGCTGGCACTGGCCACCCGGGACGCGCCCAAGGAAGGAGGACATGGAGCTGGACGACTGCAGCAAGT
TTGTGCAGTACGAGACGGACCTGACCTTCGTGGGCTGCGTAGGCATGCTGGACCCGCCGACCTGAGGT
GGCTGCCTGCATCACACGCTGCTACCAGCGGGGCATCCGCGTGGTATGATCACGGGGGATAACAAAGGC
ACTGCCGTGGCCATCTGCCGAGGCTTGGCATCTTTGGGGACACGGAAGACGCTGGCGGGCAAGGCCTACA
CGGGCCGCGAGTTTGATGACCTCAGCCCGAGCAGCAGCGCCAGGCTGCCGACCCGCCGCTGCTTCGC
CCGCGTGGAGCCCGCACACAAGTCCCGCATCGTGGAGAACCCTGCAGTCCTTTAAACAGATCACTGTATG
ACTGGCGATGGAGTGAACGACGCACCAGCCCTGAAGAAAGCAGAGATCGGCATCGCCATGGGCTCAGGCA
CGGCCGTGGCCAAGTCGGCGGCAGAGATGGTGTGTGATGACAACCTTTCCTCCATCGTGGTGCAGT
GGAGGAGGGCCGGCCATCTACAGCAACATGAAGCAATTCATCCGCTACCTCATCTCTCCAATGTTGGC
GAGGTCGTCTGCATCTTCTCACGGCAATTCTGGGCTGCCGGAAGCCCTGATCCCTGTGCAGTGTCT
GGTGAACCTGGTACAGACGGCCTACCTGCCAGGCTCTGGGCTTCAACCCGCCAGACCTGGACATCAT
GGAGAAGCTGCCCGGAGCCCCGAGAAGCCCTCATCAGTGGCTGGCTTCTTCCGATACCTGGCTATC
GGAGTGTACGTAGGCCTGGCCACAGTGGCTGCCGCCACCTGGTGGTTTGTGTATGACGCCGAGGGACCTC
ACATCAACTTCTACCAGCTGAGGAACCTCCTGAAGTGTCCGAAGACAACCCGCTCTTTCGCCGCATCGA
CTGTGAGGTGTTTCGAGTACGCTTCCCCACCACCATGGCCTTGTCCGTGCTCGTACCATTTGAAATGTGC
AATGCCCTCAACAGCGTCTCGGAGAACCAGTGCCTGCTGCGGATGCCGCCCTGGATGAACCCCTGGCTGC
TGGTGGCTGTGGCCATGTCCATGGCCCTGCACTTCTCATCTGCTGCTGCCGCCCTGCCTCTCATTTT
CCAGGTGACCCCACTGAGCGGGCCAGTGGGTGGTGGTCTCCAGATATCTCTGCTGTATCTCTGCTG
GATGAGGCCCTCAAGTACCTGTCCCGAACCACATGCACGCTGTCTTATCCAGGCTTCTCAGGACAG
TCTCGCAGGCTGGAGTAGGCAGCGCTGACCACCTCTTGACCCAGACCACCCGGAAGAAATGAGCC
AGAAGTGAAGCGCTGGGAACAGAGTGGAGTCTCCGGTGTGTACCTCAGAC
    
```

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG220099 representing NM_174955
 Red=Cloning site Green=Tags(s)

```

MEAAHLLPAADVLRHFSVTAEGGLSPAQVTGARERYGNELPSEEGKSLWELVLEQFEDLLVRILLAL
VSFVLAWFEEGETTTAFVEPLVIMLILVANAIIVGVWQERNAESAIEALKEYEPEMGKVIKSDRKGVQRI
RARDIVPGDIVEVAVGDKVPADLRLIEIKSTTLRVDQSILTGESVSVTKHTEAIPDPRAVNQDKNMLFS
GTNITSGKAVGVAVATGLHTELKIRSQMAAVEPERTPLQRKLDEFGRQLSHAISVICVAVVWINIGHFA
DPAHGGSWLRGAVYYFKIAVALAVAAIPEGLPAVITTTCLALGTRRMARKNAIVRSLPSVETLGCSTVICS
DKTGTLT TNQMSVCRMFVVAEADAGSCLLHEFTISGTTYTPEGEVROGDQPVRGQDFDLVELATICALC
NDSALDYNEAKGVYKVEATETAL TCLVEKMNVDLQALSRVERAGACNTVIKQLMRKEFTLEFSRD
RKSMSVYCTPTRPHPTGQGSKMFVKGAPESVIERCSSVRVGSRTAPLTPTSREQILAKIRDWGSGSDTLR
CLALATRDAPPRKEDMELDDCSKFVQYETDLTFVGCVMGLDPPRPEVAACITRCYQAGIRVVMITGDNKG
TAVAICRRLGIFGDTEDVAGKAYTGREFDDL SPEQQRQACRTARCFARVEPAHKSRIVENLQSFNEITAM
TGDGVNDAPALKAEIGIAMSGTAVAKSAAEMVL SDDNFASIVAAVEEGRAIYSNMKQFIRYLISSNVG
EVVICIFL TAILGLPEALIPVQLLWVNLVTDGLPATALGFNPPDL DIMEKLPRSPREALISGWLFFRYLAI
GVYVGLATVAAATWWFVYDAEGPHINFYQLRNFLKCEDNPLFAGIDCEVFESRFPTTMALSVLVTIEMC
NALNSVSENQSLLRMPWPWNPWLLVAVAMSMALHFLILLVPPLPLIFQVTPLSGRQWVVVLQISLVPVILL
DEALKYLSRNHMHACLYPGLLRTVSQAWSRQPLTTSWTPDHTGRNEPEVSAGNRVESPVCTSD
    
```

TRTRPLE – GFP Tag – V

Restriction Sites:

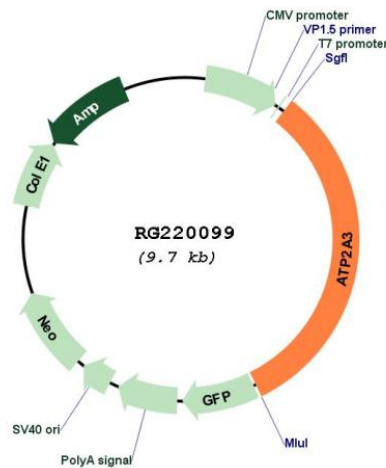
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_174955

ORF Size: 3129 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_174955.3
RefSeq Size:	4827 bp
RefSeq ORF:	3132 bp
Locus ID:	489
UniProt ID:	Q93084
Cytogenetics:	17p13.2
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Alzheimer's disease, Calcium signaling pathway
Gene Summary:	This gene encodes one of the SERCA Ca(2+)-ATPases, which are intracellular pumps located in the sarcoplasmic or endoplasmic reticula of muscle cells. This enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen, and is involved in calcium sequestration associated with muscular excitation and contraction. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]