

Product datasheet for **RG221657**

SERCA3 (ATP2A3) (NM_005173) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SERCA3 (ATP2A3) (NM_005173) 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)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RG221657 representing NM_005173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGCGCGCATCTGCTCCCGCCGCGCAGCTGCTGCGCCACTTCTCGGTGACAGCCGAGGGCGGCC
 TGAGCCCGGCGCAGGTGACCGGCGCGGGAGCGCTACGGCCCAACGAGCTCCCGAGTGAGGAAGGGAA
 GTCCTGTGGGAGCTGGTCTGGAACAGTTTGGAGACCTCCTGGTGCGCATCCTGCTGCTGGCTGCCCTT
 GTCTCCTTTGCTCCTGGCCTGGTTCGAGGAGGGCGAGGAGACCACGACCGCCTTCGTGGAGCCCTGGTCA
 TCATGCTGATCCTCGTGGCCAACGCCATTGTGGGCGTGTGGCAGGAACGCAACCGCGAGAGTGCCATCGA
 GGCCCTGAAGGAGTATGAGCCTGAGATGGGCAAGGTGATCCGCTCGGACCGCAAGGGCGTGCAGAGGATC
 CGTGCCCGGGACATCGTCCAGGGGACATTGTAGAAGTGGCAGTGGGGGACAAAGTGCCTGCTGACCTCC
 GCCTCATCGAGATCAAGTCCACCAGCTGCGAGTGGACCAGTCCATCCTGACGGGTGAATCTGTGTCGT
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 GGACCAATATCACATCGGGCAAAGCGGTGGGTGTGGCCGTGGCCACCGGCTGCACACGGAGCTGGGCA
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 GACCCGGCCACGGTGGCTCCTGGCTGCGTGGCGCTGTCTACTACTTCAAGATCGCCGTGGCCCTGGCGG
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 CGGGCCGCGAGTTTGTGACCTCAGCCCGAGCAGCAGCGCCAGGCTGCCGACCCGCCGCTGCTTCGC
 CCGCGTGGAGCCCGCACACAAGTCCCGCATCGTGGAGAACCTGCAGTCTTTAACGAGATCACTGCTATG
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 CCAGGTGACCCCACTGAGCGGGCCAGTGGGTGGTGGTCTCCAGATATCTCTGCTGTCATCCTGCTG
 GATGAGGCCCTCAAGTACCTGTCCCGGAACCACATGCACGAAGAATGAGCCAGAAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG221657 representing NM_005173
 Red=Cloning site Green=Tags(s)

MEAAHLLPAADVLRHFSVTAEGGLSPAQVTGARERYGPNELPSEEGKSLWELVLEQFEDLLVRILLAL
 VSFVLAWFEEGEETTTAFVEPLVIMLILVANAI VGVWQERNAESAIEALKEYEPEMGKVI RSDRKGVQRI
 RARDIVPGDIVEVAVGDKVPADLRLEIKSTTLRVDQSILTGESVSVTKHTEAIPDPRAVNQDKKNMLFS
 GTNITSGKAVGVAVATGLHTELKIRSQMAAVEPERTPLQRKLDEFGRQLSHAI SVICVAVVWINIGHFA
 DPAHGGSWLRGAVYYFKIAVALAVAAIPEGLPAVITTCALGTRRMARKNAIVRSLPSVETLGCTSVICS
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 NDSALDYNEAKGVYEVKGEATETALTCLVEKMNVDLQALSRVERAGACNTVIKQLMRKEFTLEFSRD
 RKSMSVYCTPTRPHPTGQGSKMFVKGAPESVIERCSSVRVGSRTAPLTPTSREQILAKIRDWGS SGTDLR
 CLALATRDAPPRKEDMELDDCSKFVQYETDLTFVGCVGMLDPPRPEVAACITRCYQAGIRVVMITGDNKG
 TAVAICRRLGIFGDTEDVAGKAYTGREFDDL SPEQQRQACRTARCFARVEPAHKS RIVENLQSFNEITAM
 TGDGVNDAPALKKAEIGIAMSGTAVAKSAAEMVLSDDNFASIVA AVEEGRAIYSNMKQFIRYLISNVG
 EVVCIFLTAILGLPEALIPVQLLWVNLVTDGLPATALGFNPPDL DIMEKLPRSPREALISGWLFFRYLAI
 GVVYGLATVAAAATWVFVYDAEGPHINFYQLRNFLKCEDNPLFAGIDCEVFESRFPPTMALSVLVTIEMC
 NALNSVSENQSLLRMPPWMNPWLLVAVAMSMALHFLILLVPPLPIFQVTPLSGRQWVVVLQISLPVILL
 DEALKYLSRNMHEEMSQK

TRTRPLE – GFP Tag – V

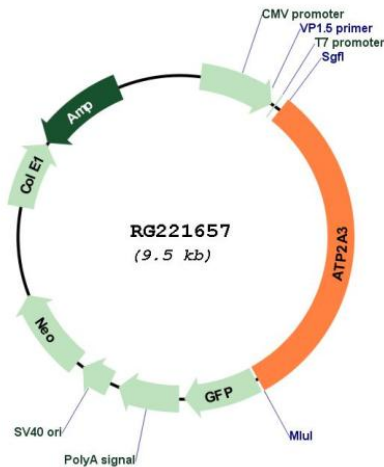
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_005173

ORF Size: 2997 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: [NM_005173.4](#)

RefSeq Size: 4739 bp

RefSeq ORF: 3000 bp

Locus ID: 489

UniProt ID: [Q93084](#)

Cytogenetics: 17p13.2

Domains:	E1-E2_ATPase, Cation_ATPase_N, Hydrolase, Cation_ATPase_C
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]