

Product datasheet for RC221657

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: Myc-DDK
Symbol: SERCA3
Synonyms: SERCA3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC221657 representing NM_005173
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGGCGGCGCATCTGCTCCCGGCCGCCGACGTGCTGCGCCACTTCTCGGTGACAGCCGAGGGCGGCC
 TGAGCCCCGGCGCAGGTGACCGGCGCGGGGAGCGCTACGGCCCCAACGAGCTCCCGAGTGAGGAAGGGAA
 GTCCTGTGGGAGCTGGTCTGGAACAGTTTGGGACCTCCTGGTGCGCATCCTGCTGCTGGCTGCCCTT
 GTCTCCTTTGCTGCTGGCCTGGTTCGAGGAGGGCGAGGAGACCACGACCGCCTTCGTGGAGCCCTGGTCA
 TCATGCTGATCCTCGTGGCCAACGCCATTGTGGGCGTGTGGCAGGAACGCAACCGCGAGAGTGCCATCGA
 GGCCCTGAAGGAGTATGAGCCTGAGATGGCAAGGTGATCCGCTCGGACCGCAAGGGCGTGACAGAGGATC
 CGTGCCCGGGACATCGTCCCAGGGGACATTGTAGAAGTGGCAGTGGGGGACAAAGTGCCTGCTGACCTCC
 GCCTCATCGAGATCAAGTCCACCACGCTGCGAGTGGACCAGTCCATCCTGACGGGTGAATCTGTGTCCGT
 GACCAAGCACACAGAGGCCATCCCAGACCCAGAGCTGTGAACCAGGACAAGAAGAACATGCTGTTTTCT
 GGCACCAATATCACATCGGGCAAAGCGGTGGTGTGGCCGTGGCCACCGGCTGCACACGGAGCTGGGCA
 AGATCCGGAGCCAGATGGCGGCAGTCGAGCCCGAGCGGACGCCGCTGCAGCGCAAGCTGGACGAGTTGG
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 GACCCGGCCACCGTGGCTCCTGGCTGCGTGGCGCTGTCTACTACTTCAAGATCGCGTGGCCCTGGCGG
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 GACAAGACGGGCACGCTCACCACCAATCAGATGTCTGTCTGCCGATGTTCTGTGTAGCCGAGGCCGATG
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 AACGACTCGGCTCTGACTACAACGAGGCCAAGGGTGTGTATGAGAAGTGGGAGAGGCCACGGAGACAG
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 AGCTGGCGCCTGTAACACGGTCATCAAGCAGCTGATGCGGAAGGAGTTACCCCTGGAGTTCTCCCGAGAC



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CGGAAATCCATGTCCGTGTACTGCACGCCACCCGCCCTCACCTACTGGCCAGGGCAGCAAGATGTTTG
 TGAAGGGGCTCCTGAGAGTGTGATCGAGCGCTGTAGCTCAGTCCGCGTGGGGAGCCGACAGCACCCCT
 GACCCCACTCCAGGGAGCAGATCCTGGCAAAGATCCGGGATTGGGGCTCAGGCTCAGACACGCTGCGC
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 CTGTGAGGTGTTTCGAGTACGCTTCCCCACCACCATGGCCTTGTCCGTGCTCGTGACCATTGAAATGTGC
 AATGCCCTCAACAGCGTCTCGGAGAACCAGTGCCTGCTGCGGATGCCGCCCTGGATGAACCCCTGGCTGC
 TGGTGGCTGTGGCCATGTCCATGGCCCTGCACTTCTCATCTGCTGCTGCCGCCCTGCCTCTCATTTT
 CCAGGTGACCCCACTGAGCGGGCCAGTGGTGGTGGTGTCCAGATATCTCTGCTGTACATCTGCTG
 GATGAGGCCCTCAAGTACCTGTCCCGAACCACATGCACGAAGAAATGAGCCAGAAG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAGGTTTAA

Protein Sequence:

>RC221657 representing NM_005173
 Red=Cloning site Green=Tags(s)

MEAAHLPAADVLRHFSVTAEGGLSPAQVTGARERYGNELPSEEGKSLWELVLEQFEDLLVRILLAL
 VSFVLAWFEEGETTTAFVEPLVIMLILVANAIIVGVWQERNAESAIEALKEYEPEMGKVIIRSDRKGVQRI
 RARDIVPGDIVEVAVGDKVPADLRLEIKSTTLRVDQSILTGESVSVTKHTEAIPDPRAVNQDKNMLFS
 GTNITSGKAVGVAVATGLHTELKIRSQMAAVEPERTPLQRKLDEFGRQLSHAISVICVAVWVINIGHFA
 DPAHGGSWLRGAVYYFKIAVALAVAAIPEGLPAVITTCALGTRRMARKNAIVRSLPSVETLGCTSVICS
 DKTGTLTTNQMSVCRMFVVAEADAGSCLLHEFTISGTTYTPEGEVRQDQPVRCGQFDGLVELATICALC
 NDSALDYNEAKGVYKVEATETAL TCLVEKMNVFDTDLQALSRVERAGACNTVIKQLMRKEFTLEFSRD
 RKSMSVYCTPTRPHTGQGSKMFVKGAPESVIERCSSVRVGSRTAPLTPTSREQILAKIRDWGSGSDTLR
 CLALATRDAPPRKEDMELDDCSKFVQYETDLTFVGCVGMLDPPRPEVAACITRCYQAGIRVVMITGDNKG
 TAVAICRRLGIFGDTEDVAGKAYTGREFDDL SPEQQRQACRTARCFARVEPAHKSRIVENLQSFNEITAM
 TGDGVNDAPALKKAEIGIAMSGTAVAKSAAEMVL SDDNFASIVAAVEEGRAIYSNMKQFIRYL ISSNVG
 EVVICIFLTAILGLPEALIPVQLLWVNLVTDGLPATALGFNPPDLIMEKLPSPREALISGWLFFRYLAI
 GYYVGLATVAAATWWFVYDAEGPHINFYQLRNFLKCEDNPLFAGIDCEVFESRFPTTMALSVLVTIEMC
 NALNSVSENQSLLRMPPWMPWLLVAVAMSMALHFLILLVPPLPLIFQVTPLSGRQWVVVLQISLPVILL
 DEALKYL SRNHMHEEMSQK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


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).

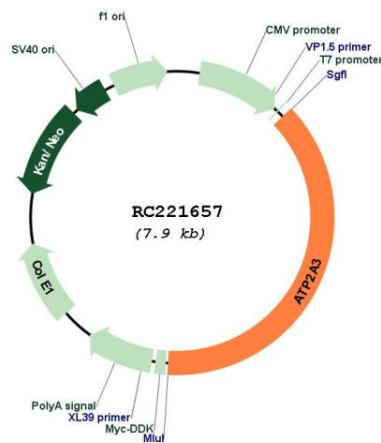
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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: 4698 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
MW:	109.1 kDa
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]

Product images:



Circular map for RC221657