

Product datasheet for RC217328

SERCA3 (ATP2A3) (NM_174953) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SERCA3 (ATP2A3) (NM_174953) 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:	>RC217328 representing NM_174953 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGCGGCGCATCTGCTCCCGGCCGCCGACGTGCTGCGCCACTTCTCGGTGACAGCCGAGGGCGGCC
TGAGCCCCGGCGCAGGTGACCGGCGCGGGGAGCGCTACGGCCCCAACGAGCTCCCGAGTGAGGAAGGGAA
GTCCCTGTGGGAGCTGGTCTGGAACAGTTTGGAGACCTCTGGTGCGCATCTGCTGCTGGCTGCCCTT
GTCTCCTTTGCTCCTGGCCTGGTTTCGAGGAGGGCGAGGAGACCACGACCGCCTTCGTGGAGCCCTGGTCA
TCATGCTGATCCTCGTGGCCAACGCCATTGTTGGGCGTGTGGCAGGAACGCAACGCCGAGAGTGCCATCGA
GGCCTGAAGGAGTATGAGCCTGAGATGGCAAGGTGATCCGCTCGGACCGCAAGGGCGTGACAGAGGATC
CGTGCCCGGGACATCGTCCCAGGGGACATTGTAGAAGTGGCAGTGGGGGACAAAGTGCCTGCTGACCTCC
GCCTCATCGAGATCAAGTCCACCACGCTGCGAGTGGACCAGTCCATCCTGACGGGTGAATCTGTGTCCGT
GACCAAGCACACAGAGGCCATCCCAGACCCAGAGCTGTGAACCAGGACAAGAAGAACATGCTGTTTTCT
GGCACCATATCACATCGGGCAAAGCGGTGGTGTGGCCGTGGCCACCGGCTGCACACGGAGCTGGGCA
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ACGGCAGCTGTCCACGCCATCTCTGTGATCTGCGTGGCCGTGTGGGTCAATCAACATCGGCCACTTCGCC
GACCCGGCCACCGTGGCTCCTGGCTGCGTGGCGCTGTCTACTACTTCAAGATCGCGTGGCCCTGGCGG
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ACGCAAGAACGCCATCGTGCAAGCCTGCCGTCCGTGGAGACCCTGGGCTGCACCTCAGTCACTGCTCC
GACAAGACGGGCACGCTCACCACCAATCAGATGTCTGTCTGCCGATGTTCTGTGGTAGCCGAGGCCGATG
CGGGCTCCTGCCTTTTGCACGAGTTCACCATCTCGGGTACCACGTATACCCCGAGGGCGAAGTGCAGCA
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AACGACTCGGCTCTGACTACAACGAGGCCAAGGGTGTGTATGAGAAGTGGGAGAGGCCACGGAGACAG
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CGGAAATCCATGTCCGTGTACTGCACGCCACCCGCCCTCACCTACTGGCCAGGGCAGCAAGATGTTTG
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 CTGTGAGGTGTTTCGAGTACGCTTCCCCACCACCATGGCCTTGTCCGTGCTCGTGACCATTGAAATGTGC
 AATGCCCTCAACAGCGTCTCGGAGAACCAGTGCCTGCTGCGGATGCCGCCCTGGATGAACCCCTGGCTGC
 TGGTGGCTGTGGCCATGTCCATGGCCCTGCACTTCTCATCTGCTGCTGCCGCCCTGCCTCTCATTTT
 CCAGGTGACCCCACTGAGCGGGCCAGTGGTGGTGGTGTCCAGATATCTCTGCTGTGATCCTGCTG
 GATGAGGCCCTCAAGTACCTGTCCCGAACCACATGCACGCTGTCTTATCCAGGCCTTCTCAGGACAG
 TCTCGCAGGCCTGGAGTAGGCAGCCGCTGACCACCTCTTGACCCAGACCACCCGGGTGGCCTCTTT
 GGGCCAGGGACACAGCATCGTCTCGCTGTGAGAGCTGCTCAGAGAGGGAGGAAGCAGGGAAGAAATGAGC
 CAGAAG

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217328 representing NM_174953
 Red=Cloning site Green=Tags(s)

MEAAHLLPAADVLRHFSVTAEGGLSPAQVTGARERYGNELPSEEGKSLWELVLEQFEDLLVRILLAL
 VSFVLAWFEEGETTTAFVEPLVIMLILVANAIVGVWQERNAESAIEALKEYEPEMGKVIKRSRKGVQRI
 RARDIVPGDIVEVAVGDKVPADLRLEIKSTTLRVDQSILTGESVSVTKHTEAIPDPRAVNQDKNMLFS
 GTNITSGKAVGVAVATGLHTELGKIRSQMAAVEPERTPLQRKLDEFGRQLSHAISVICVAVWVINIGHFA
 DPAHGGSWLRGAVVYFKIAVALAVAAIPEGLPAVITTCALGTRRMARKNAIVRSLPSVETLGCSTVICS
 DKTGTLTTNQMSVCRMVVAEADAGSCLLHEFTISGTTYTPEGEVRQGDQPVRCGQFDGLVELATICALC
 NDSALDYNEAKGVYKVEATETALTCLVEKMNVDLQALSRVERAGACNTVIKQLMRKEFTLEFSRD
 RKSMSVYCTPTRPHTGQGSKMFVKGAPESVIERCSSVRVGSRTAPLTPTSREQILAKIRDWGSQSDTLR
 CLALATRDAPPRKEDMELDDCSKFVQYETDLTFVGCVMGLDPPRPEVAACITRCYQAGIRVVMITGDNKG
 TAVAI CRRLGIFGDTEVAGKAYTGREFFDL SPEQQRQACRTARCFARVEPAHKSRIVENLQSFNEITAM
 TGDGVNDAPALKKAEIGIAMSGTAVAKSAAEMVLSDDNFASIVAAVEEGRAIYSNMKQFIRYLISSNVG
 EVVICIFLTAILGLPEALIPVQLLWVNLVDGLPATALGFNPPDLIMEKLPRSPREALISGWLFFRYLAI
 GVVYGLATVAAATWVYDAEGPHINFYQLRNFLKCEDNPLFAGIDCEVFESRFPTTMALSVLVTIEMC
 NALNSVSENQSLLRMPWMPWLLVAVAMSMALHFLILLVPPLPLIFQVTPLSGRQWVVVLQISLPVILL
 DEALKYL SRNHMHACLYPGLLRVTSQAWSRQPLTTSWTPDHTGLASLQGHSIVLSSELLREGSREEMS
 QK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8013_b07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_174953

ORF Size: 3156 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_174953.3](#)

RefSeq Size: 4857 bp

RefSeq ORF: 3159 bp

Locus ID: 489

UniProt ID: [Q93084](#)

Cytogenetics: 17p13.2

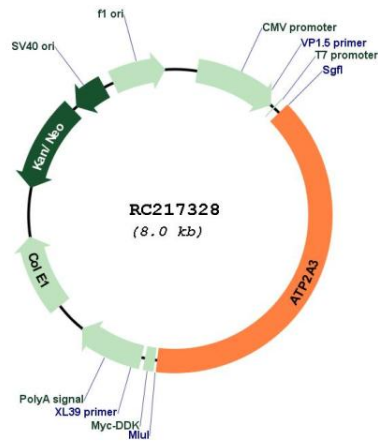
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Alzheimer's disease, Calcium signaling pathway

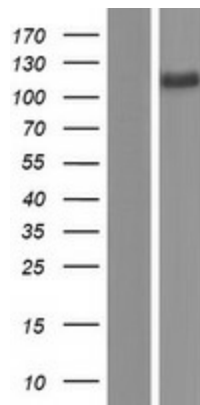
MW: 114.8 kDa

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]

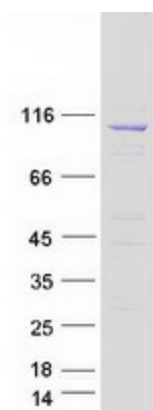
Product images:



Circular map for RC217328



Western blot validation of overexpression lysate (Cat# [LY406349]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217328 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATP2A3 protein (Cat# [TP317328]). The protein was produced from HEK293T cells transfected with ATP2A3 cDNA clone (Cat# RC217328) using MegaTran 2.0 (Cat# [TT210002]).