

## Product datasheet for **RR206015**

### Atp2a3 (NM\_012914) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Atp2a3 (NM_012914) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atp2a3
Synonyms:	SERCA3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RR206015 representing NM_012914 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGGAGGCGCACCTGCTCTCGGCTGCCGACGTGCTGCGTCGTTCTCGGTGACAGCCGAGGGCGGCT  
TGACCCCTGGAGCAGGTGACCGACGCCGGGAGCGATACGGCCCCAACGAACCTCCCTACTGAGGAAGGGAA  
ATCCCTGTGGGAGCTGGTGGTGGAGCAGTTTGGAGACCTTTGGTGGCCTCCTGCTGCTGGCAGCCCTG  
GTTTCCTTTGTCCTGGCCTGGTTTGGAGAGGGTGGAGAGACCACGACGGCCTTCGTGGAGCCCTCGTCA  
TCATGTTAATCCTTGTGGCCAATGCGATCGTGGGAGTGTGGCAGGAACGCAATGCTGAGAGTGCCATTGA  
GGCCTTGAAGGAGTATGAGCCTGAGATGGGTAAGGTGATCCGCTCTGACCGCAAGGGTGTGCAGAGGATC  
CGAGCCAGGGACATCGTCCCTGGGGACATTGTGGAAGTGGCAGTGGGAGACAAGGTACCTGCTGACCTCC  
GCCTCATCGAGATCAAGTCCACCACACTTCGAGTGGACCAGTCCATCCTGACAGGGGAATCCGTGTCTGT  
GACTAAGCACACAGATGCCATTCAGACCCCGAGCCGTGAACCAGGACAAGAAGAATGCTGTTTTCT  
GGCACCAATATTGCATCAGGCAAAGCCCTGGGTGTGGCTGTGGCCACAGGCTTGCACACAGAGCTGGGCA  
AGATTCGGAGCCAGATGGCGGCTGTGGAGCCTGAGCGGACGCCACTGCAGCGCAAGCTGGATGAATTTGG  
GAGGCAGCTGTCCATGCCATCTGTGATCTGTGTGGCTGTGGGTGATCAACATCGGACACTTTGCT  
GACCCGGCCCATGGTGGATCCTGGCTCCGTGGGCACTACTACTTCAAGATTGCTGTGGCCCTGGCTG  
TGGCTGTATCCCCGAGGGCCTCCAGCAGTCACTACATGCCTAGCACTGGGACAAGACGTATGGC  
ACGTAAGAACGCCATTGTGCGGAGCCTGCCCTCTGTGGAGACCCTGGGCTGCACCTCAGTCATCTGCTCT  
GACAAGACAGGGACACTCACCACCAATCAAATGTCTGTCTGCAGGATGTTCTGTGGTAGTGAAGCAGAGG  
CAGGCGCCTGTGCTTTACACGAATTCACATTTCCGGTACCACGTATACCCAGAGGGCGAAGTGAAGCA  
AGGGGAACAGCTTGTGCGCTGTGGCAGTTTGTGGACTTGTGGAGCTCGCAACCATCTGTGCACCTGTC  
AATGATTCTGCACTGGACTACAATGAGGCCAAGGGTGTGTATGAGAAGGTAGGAGAGGCCACAGAGACAG  
CCCTCACTTGCCTGGTAGAGAAGATGAACGTGTTTACACAGACCTGAAAGGACTGTCCGGGTCCGAGCG  
CGCTGGTGCCTGCAATTCGTCATCAAGCAACTCATGCAGAAGGAGTTACCCCTCGAATTCCTCCGGGAC  
CGGAAGTCCATGTCTGTACTGCACACCCACTCGTGCTGACCCCAAGGCCAGGGCAGCAAGATGTTTTG



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TGAAGGGAGCTCCTGAGAGTGAATTGAGCGCTGCAGCTCAGTCCGCGTGGGAAGCCGAACAGTACCCCT  
 AAGCGCCACCTCCAGAGAGCATATCCTGGCCAAGATCCGAGACTGGGCTCAGGCTCTACATATTGCGC  
 TGCTTAGCACTGGCCACCAGGGACACACCCCAAGGAAGGAGGACATGCAACTGGATGACTGCAGTCAGT  
 TTGTACAGTACGAGACAGGCCTGACCTTCGTGGGCTGCGTGGGCATGTTAGACCCACCGAGACCAGAGGT  
 GGCTGCCTGTATCACACGCTGTTCTCGGGCGGGCATTGAGTGGTCATGATCACAGGGGACAACAAAGGG  
 ACAGCTGTGGCCATCTGCCGCCGACTTGGCATCTTTGGGGATACGGAGGATGTGTTGGGCAAGGCTTACA  
 CGGGCCGAGAATTCGATGACCTCAGCCAGAGCAGCAGCCAGGCTTGCCGTACCGCCCGATGCTTTGC  
 CCGTGTGGAACCCGCACATAAGTCTCGCATCGTGGAGAACCTCCAGTCTTTAATGAGATCACCGCCATG  
 ACTGGCGATGGGGTGAATGATGCACCAGCCCTGAAGAAGGCAGAGATCGGCATCGCCATGGGCTCAGGCA  
 CTGCTGTGGCCAAGTCGGCAGCGGAGATGGTTCTGTCTGATGACAACTTTGCCTCCATTGTGGTGCAGT  
 GGAGGAGGGCAGGGCCATCTACAACAACATGAAGCAATTCATCCGCTACCTCATCTCCTCAATGTTGGC  
 GAGTTGTCTGCATCTTCTCACAGCAATTCTGGGCTGCCGGAAGCCCTGATCCCTGTGCAGTGTCTCT  
 GGGTGAACCTGGTAACAGATGGTTACCTGCCACAGCCCTGGCTCAACCCACCCGATCTGGACATCAT  
 GGGAAAGTGCCTCGGAACCCCGGGAGGCTCTCATCAGCGGCTGGCTTTTTTCCGCTATTTGGCTATT  
 GGAGTGTACGTAGGCCTGGCTACAGTGGCTGCCGCCACCTGGTGGTTCTGTATGACGCTGAGGGACCAC  
 AAGTACCTTCCATCAGCTGAGGAACCTTCTGAAGTGTCTGAAGACAATCCACTGTTTGGCCGCATCGA  
 CTGCGAGGTCTTTGAGTACGCTTCCCCACGACCATGGCCTTATCTGTGCTTGTGACCATTGAAATGTGC  
 AACGCCCTAACAGCGTCTCAGAGAACCAGTCACTGCTGCGTATGCCACCTGGCTGAACCTTGGCTGC  
 TGGGGGCTGTGGTCATGTCCATGGCCCTGCATTTTCTCATCCTTTTGGTGGCCCTCTGCCCTCATTTT  
 CCAGGTGACCCCACTGAGTGGTGCAGAGTGGGGGGTGGTCTTCAGATGTCTCTGCCTGTACCTGCTT  
 GACGAGGCCCTCAAGTATCTGTCCAGGCATCACGTGGATGAAAAAAGGACCTGAAG

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR206015 representing NM\_012914  
 Red=Cloning site Green=Tags(s)

MEEAHLLSAADVLRFRSVTAEGGLTLEQVTDARERYGNELPTEEGKSLWELVVEQFEDLLVRILLAL  
 VSFVLAWFEEGETTTAFVEPLVIMLILVANAIVGVWQERNAESAIEALKEYEPENMGKIVIRSDRKGVQRI  
 RARDIVPGDIVEVAVGDKVPADLRLEIKSTTLRVDQSILTGESVSVTKHTDAIPDPRAVNQDKKNMLFS  
 GTNIASGKALGVAVATGLHTELGKIRSQMAAVEPERTPLQRKLEDFGRQLSHAISVICVAVWVINIGHFA  
 DPAHGGSWLRGAVYYFKIAVALAVAAIPEGLPAVITTCALGTRRMARKNAIVRSLPSVETLGCTSVICS  
 DKTGTLTNNQMSVCRMFVVAEAEAGACRLHEFTISGTTYTPEGEVRQGEQLVRCGQFDGLVELATICALC  
 NDSALDYNEAKGVYKVEATETAL TCLVEKMNVDLTKGLSRVERAGACNSVIKQLMQKEFTLEFSRD  
 RKSMSVYCTPTRADPKAQGSKMFVKGAPESVIERCSSLVRSRTVPLSATSRHILAKIRDWGSHTLR  
 CLALATRDTPPRKEDMQLDDCSQFVQYETGLTFVGCVMGLDPPRPEVAACITRCSRAGIRVVMITGDNKG  
 TAVAICRRLGIFGDTEDVLGKAYTGREFDDL SPEQQRQACRTARCFARVEPAHKSRIVENLQSFNEITAM  
 TGDGVNDAPALKKAEIGIAMSGTAVAKSAAEMVLSDDNFASIVAAVEEGRAIYNNMKQFIRYLISSNVG  
 EVVICIFLTAIILGLPEALIPVQLLWVNLVTDGLPATALGFNPPDLIMEKLPNPREALISGWLFFRYLAI  
 GVVYGLATVAAATWWFLYDAEGPQVTFHQLRNFLKCEDNPLFAGIDCEVFESRFPTTMALSVLVTIEMC  
 NALNSVSENQSLLRMPPWLNWLLGAVVMSMALHFLILLVPPLPLIFQVTPLSGRQWGVVLQMSLPVILL  
 DEALKYL SRHHVDEKDKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

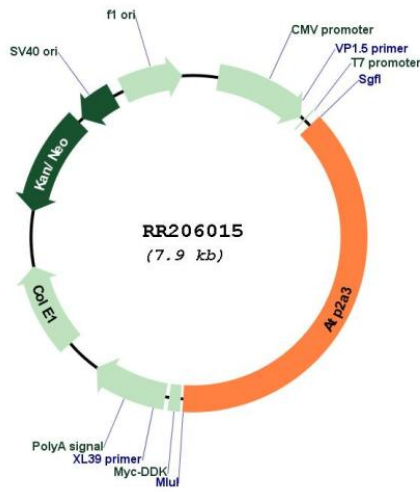
Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM\_012914  
 ORF Size: 2997 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_012914.1</a> , <a href="#">NP_037046.1</a>
<b>RefSeq Size:</b>	4472 bp
<b>RefSeq ORF:</b>	3000 bp
<b>Locus ID:</b>	25391
<b>UniProt ID:</b>	<a href="#">P18596</a>
<b>Cytogenetics:</b>	10q24
<b>MW:</b>	109.4 kDa
<b>Gene Summary:</b>	pumps Ca <sup>2+</sup> into the endoplasmic reticulum; plays a role in cellular Ca <sup>2+</sup> signaling [RGD, Feb 2006]