

Product datasheet for SC119107

ATP2B2 (NM_001683) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP2B2 (NM_001683) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP2B2
Synonyms:	PMCA2; PMCA2a; PMCA2i
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL6</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119107 sequence for NM_001683 edited (data generated by NextGen Sequencing)

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ATGGGTGACATGACCAACAGCGACTTTTACTCCAAAACCAAAGAAATGAGTCGAGCCAT
GGGGGCGAGTTTCGGGTGACAATGGAGGAGCTCCGCTCCCTCATGGAGCTGCGGGGCACT
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AGCGCCTACACCACCAAGATTCTGCCCCAGAGAAGGAGGGCGCCCTGCCTCGGCAGGTG
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Clone variation with respect to NM_001683.3

603 c=>g;1302 c=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001683 unedited
 TTCTTCCCCCGCCGNNNGNCGCAAAGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAA
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 CCTGGGAAAGAGAAAGCANATTTTTGGGCACAACTTTATACCTCCAAGAAGACANAAC
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 CGCCATCATCTCCTGGGGCTGTCTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001683 unedited
 TATCGCGCCGCAATTANAGTCTAGTTTTATTTTTTTTTTTTTAAAGAACAGANTGGTGA
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 AAATTATTTACCCCTAATGGAGTGAAGTGCACAAACGTACCCCATGCTGTAGATATAGG
 ACGCAGAGTGCAAGCTTTATGTACTACAGTGAGTTTTGACAAACCAACATTTTCGTGTGT
 GTGTGTGTGTATGTGTGCAAGTGTGAGAGTGAGGGGGTGCATGTGTGCAAGCATCCTTCA
 TTCCTGACAAGAGAAGACCAACGCTAATGTTGGCATTCTCCATCGCTCCCTGTTCCCTA
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 GTTTTACACGTGCAGATCTTTCCTTCTTGTAGGAGAGCAGTGGGCTGGCTTTGGTGGCG
 TTTGTAAGTGAATCCAATAAGCACATCTGANGGCTGGTCAACCCCTTTGGTTATGCAGTTC
 CTCTCCTGGATACATTACAGATACTTCTTACGACATTCANGTGTGCGCTCTTTGAGG
 TCCTCCTTNCCAGAGGNNATTTGCCAGTGGGATGGGCTGACTTTGAACCCCAACCTCAA
 GTTTTACCAGNACCAGATGTANGCCCTCCAGTACTATGGCTCTTTNCCGAGTGCTC
 TCATCTTGTGTGGAANAATTCTCTGGCCCTGAAAAGGAAGGGGCTTGGCTGACCANNCA
 TCGTGAGGAGTTCANCATGAGAATGTATTTTGCAGAAAGCGGAAATGTTGGTTTCTCTC
 AACATGGCATATCGATN

Restriction Sites:

NotI-NotI

ACCN:

NM_001683

Insert Size:

6000 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_001683.2](#), [NP_001674.2](#)

RefSeq Size: 6686 bp

RefSeq ORF: 3597 bp

Locus ID: 491

Cytogenetics: 3p25.3

Domains: E1-E2_ATPase, Cation_ATPase_N, Hydrolase, Cation_ATPase_C

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Calcium signaling pathway

Gene Summary: The protein encoded by this gene belongs to the family of P-type primary ion transport ATPases characterized by the formation of an aspartyl phosphate intermediate during the reaction cycle. These enzymes remove bivalent calcium ions from eukaryotic cells against very large concentration gradients and play a critical role in intracellular calcium homeostasis. The mammalian plasma membrane calcium ATPase isoforms are encoded by at least four separate genes and the diversity of these enzymes is further increased by alternative splicing of transcripts. The expression of different isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, suggesting that these pumps are functionally adapted to the physiological needs of particular cells and tissues. This gene encodes the plasma membrane calcium ATPase isoform 2. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (2) lacks three in-frame exons, compared to variant 1. The encoded isoform (2), also known as ZB, is shorter, compared to isoform 1. Variants 2 and 4 encode the same isoform. Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.