

Product datasheet for **SC300165**

ATP2B2 (NM_001001331) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ATP2B2 (NM_001001331) Human Untagged Clone
Tag:	Tag Free
Symbol:	ATP2B2
Synonyms:	PMCA2; PMCA2a; PMCA2i
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC300165 representing NM_001001331. Blue=Insert sequence Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTGAAACCGTCAGAATTTTGTAAATACGACTACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGTGACATGACCAACAGCGACTTTTACTCCAAAACCAAAGAAATGAGTCGAGCCATGGGGGCGAG
TTCGGGTGCACAATGGAGGAGCTCCGCTCCCTCATGGAGCTGCGGGGCACTGAGGCTGTGGTCAAGATC
AAGGAGACTTATGGGGACACCGAAGCCATCTGCCGGCGCCTCAAACCTCACCTGTTGAAGGTTTGCCG
GGCACCCTCCAGACCTGAAAAGAGAAAAGCAAATTTTGGGCAAACTTTATACCTCAAAGAAGCCA
AAAACCTTCTGCAGCTCGTGTGGGAGGCGCTGCAGGACGTGACGCTCATCATCTGGAGATTGCCGCC
ATCATCTCCCTGGGCTGTCCTTCTACCACCCGCGGCGAGGGCAACGAAGGATGTGCGACGGCCAG
GGTGGGGCAGAGGATGAAGGAGAGGCAGAGGCAGGTTGGATCGAGGGGGCCGCCATTCTCCTCTCAGTT
ATCTGTGTGGTCTGGTACGGCCTTCAATGACTGGAGCAAAGAGAAAACAGTTCCGGGGCCTGCAGAGC
CGCATCGAGCAGGAACAGAAATTTACCGTGGTCCGGGCTGGCCAGGTGGTCCAGATCCCTGTGGCTGAG
ATCGTGGTTGGGGACATAGCCCAGGTCAAATATGGTGACCTCCTCCCTGCCGACGGCCTTTCATCCAG
GGCAATGACCTCAAGATTGATGAAAGCTCCCTAACTGGAGAGTCTGACCAGGTGCGCAAGTCCGTGGAC
AAGGACCCCATGCTGCTGTCAGGAACCCACGTGATGGAGGGCTCAGGACGGATGTTGGTGACTGCTGTG
GGTGTGAACTCTCAGACTGGCATCATCTTACCCTCCTGGGGCTGGTGGTGAAGAGGAAGAGAAGAAA
GACAAAAAGGTGTGAAGAAGGGGATGGCCTTACGCTACCAGCAGACGGTGGCGGACGCTTCAAAT
GCTGCAGATAGTGCGAATGCCAGCCTAGTCAATGGTAAAATGCAGGATGGCAATGTGGACGCCAGCCAG
AGCAAAGCCAAACAACAGGACGGGGCAGCCGCTTGGAGATGCAGCCCTCAAGAGTGCCGAGGGCGGC
GACGCTGACGACAGGAAGAAGGCCAGCATGCACAAGAAGGAGAAGTCCGTGCTGCAGGGCAAGCTCACC
AAGCTGGCTGTGCAGATCGGGAAGGCGGGCTTGGTGTGATGTGAGCCATCACGGTATCATCTGGTGTCT
TACTTCACTGTGGACACCTTCGTGGTCAACAAGAAGCCGTGGCTGCCTGAGTGCACGCCGCTACGTG
CAGTACTTTGTCAAGTTCTTCATATTGGCGTGACGGTGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT
CTGGCCGTCAACATCTCGTTGGCCTATTCGGTGAAGAAAATGATGAAGGACAACAACCTGGTACGCCAC
CTGGATGCTGTGAGACCATGGCAATGCCACAGCCATCTGCTCAGACAAGACAGGCACGCTGACCACC
```



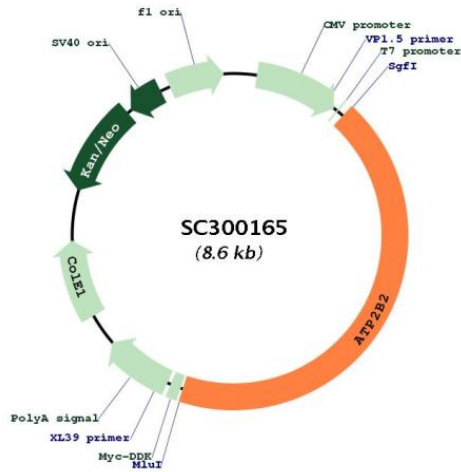
[View online >](#)

AATCGCATGACAGTGGTACAGGCCTATGTCGGCGACGTCCAATATAAAGAGATCCCCGACCCAGCTCC
ATCAACACCAAGACCATGGAGCTGCTGATCAATGCCATCGCCATCAACAGCGCCTACACCACCAAGATT
CTGCCCCAGAGAAGGAGGGCGCCCTGCCTCGGCAGGTGGGCAACAAGACGGAGTGCAGCCCTGCTGGGC
TTCGTGCTGGACCTGAAGCAGGACTACGAGCCCGTGCAGCAGCAGATGCCAGAGGAGAAGTTGTACAAA
GTGTACACCTTCAACTCCGTGCGCAAGTCCATGAGCACTGTCAAGCTGCCGACGAGAGCTCCGC
ATGTACAGCAAGGGGCTTCTGAGATCGTGCTCAAGAAGTGTGCAAAAATCCTCAATGGGCGGGAGAG
CCTCGTGTCTTCCGGCCCCGACCGGGACGAGATGGTAAGAAGGTGATTGAGCCCATGGCTTGCAT
GGGCTCCGCACTATCTGGTGGCTACCGCGACTTCCCCAGCAGCCGGAGCCGGACTGGGACAATGAG
AATGACATCCTCAACGAACCTCACCTGCATCTGCGTGGTGGGCATCGAGGACCCGGTGCAGCCAGAGGTC
CCAGAAGCCATCCGAAGTGCCAGCGGGCAGGCATCACGGTCCGCATGGTCACTGGCGACAATATCAAC
ACGGCTCGGGCCATCGCCATCAAGTGTGGCATCATCCATCCTGGGGAGGACTTTCTGTGCCTCGAGGGC
AAGGAGTTCAACAGGAGGATCCGCAACGAGAAGGGGGAGATTGAGCAGGAGCGAATTGACAAGATCTGG
CCAAAGCTGCGGGTGTGGCTCGCTCCTCCCAACGGACAAGCATAACCCTGGTTAAAGGCATCATCGAC
AGCACACACTGAGCAGCGCAGGTGGTGGCCGTGACGGGGACGGGACCAACGACGGGCTGCACTC
AAGAAGGCCGACGTGGGCTTCCGATGGGCATCGCAGGCACTGACGTGGCCAAGGAGCCCTCAGACATC
ATCCTGACAGACGACAATTTAGCAGCATCGTCAAGGCAGTGATGTGGGCGCGAACGTCTATGACAGC
ATCTCAAATTTTGCAGTTCAGCTCACCGTCAACGTGGTGGCCGTGATTGTGGCCCTCACAGGGCC
TGCATCACGCAGGACTCCCTCTGAAGGCCGTGCAGATGCTCTGGGTGAACCTCATCATGGACAGTTT
GCCTCGTGGCACTGGCCACTGAGCCGCCACGGAGACCTGTGCTGAGGAAGCCGTACGGCCGCAAC
AAGCCGCTCATCTCCAGGACCATGATGAAGAACATCCTGGGCCATGTGTCTACCAGCTTGCCTCATC
TTCACCTGTCTTTGTTGGCGAGAAGATGTTCCAGATCGACAGCGGGAGGAACGCGCCCTGCATTG
CCACCTCAGAACATTACCCATCATCTTCAACACCTTCGTGATGACAGCTCTTCAACGAGATCAAC
GCCCCAAGATCCACGGCGAGCGCAATGTCTTTGACGGCATCTCCGGAACCCCATCTTCTGCACCATC
GTGCTGGGCACCTTTGCCATCCAGATAGTGATCGTGAGTTGGAGGGAAGCCATTAGCTGCTCTCCA
CTGCAGCTGGACCAAGTGGATGTGGTGCATATTCATTGGTTAGGAGAGCTCGTTTGGGGCCAGGTCATC
GCCACCATCCCGACCAGCAGACTCAAGTTCCTCAAGGAGGCAGGCAGGCTCACACAGAAGGAGGAGATC
CCGGAGGAGGAGCTCAACGAGGACGTGGAGGAGATCGACCACGCGGAGCGGGAGCTGCGGCGGGCCAG
ATCCTGTGGTTCCGAGGCCTGAATCGGATCCAGACACAGATCCGCGTGTGAAGGCGTCCGTAAGCTCT
CTCTATGAAGTTTAGAAAAGCCTGAATCTCGAACCTCCATCCATAACTCATGGCTCATCTGAATTC
CGGATCGAAGATCCCAGCCCCACATCCCCTCATTGATGACACCGACCTGGAAGAAGATGCCGCGCTC
AAGCAGAACTCGAGCCCCTGATCCCTCAACAAGAACAACAGCGCCATCGACAGTGGGATCAACCTG
ACGACCGACACAAGCAAATCAGTACCTCTTCAAGTCCAGGGAGCCCCATCCACAGCCTGGAGACGTGC
CTTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:

SgfI-MluI

Plasmid Map:


ACCN:	NM_001001331
Insert Size:	3732 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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001001331.2](#)

RefSeq Size: 8962 bp

RefSeq ORF: 3732 bp

Locus ID: 491

UniProt ID: [Q01814](#)

Cytogenetics: 3p25.3

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Calcium signaling pathway

MW: 136.9 kDa

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 (1) encodes the longest isoform (1), also known as WB.
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.