

## Product datasheet for SC315002

### SPCA2 (ATP2C2) (NM\_014861) Human Untagged Clone

#### Product data:

|                           |                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                     |
| Product Name:             | SPCA2 (ATP2C2) (NM_014861) Human Untagged Clone                                         |
| Tag:                      | Tag Free                                                                                |
| Symbol:                   | SPCA2                                                                                   |
| Synonyms:                 | SPCA2                                                                                   |
| Mammalian Cell Selection: | None                                                                                    |
| Vector:                   | <u>pCMV6-XL4</u>                                                                        |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                                  |
| Fully Sequenced ORF:      | >SC315002 representing NM_014861.<br>Blue=Insert sequence Red=Cloning site Green=Tag(s) |

CTCTCATGGGAGGGTCTTAAGACCCACAGTCAGCAAAGCGGGTTACATTAGCATCTCCAGTATTCTTTT  
 CATCTTGTAAACTGAATCTGTCTCCATTAACACTCACTCCCCATTCCCTCTCCCTCCAGCCTCTGAC  
 ACCCACCATTCTACTTTCTGTCTCTATGAATTTGACTAGTCTATGTAATTCATATGTGGAATCAACAGA  
 ATTTGTCTTTTGTGACTGGTTTATTTCACTTAACCTCATCCTCAAGGTTCAACTAAAGGTGTATCCA  
 GTTTGTAGCACGTGTGAGCATTTTCTTCGTTCTCAGGCTAAATAGTATTTTCATTGTGTGTACACCA  
 GTTTTCATGCATTCAATCATCCCTTGAAGATTGGTGGGTGTTTCCTCCTTTTGTCTTTGTGAACAG  
 TGCTACGAACATGGTTGTACAAACATCTCTGGAGCCCCACTAGCAGTTCCTTTGGGTATATACCCAA  
 AGTGGAATTGCTGGATTCTGGTAGCTCCCTTTTAATTTTTTGAGGAATCGCCACACAGTTTCCATAAC  
 AGCTGCACCATTTTACATTCCCAAGACCTTTTTTTTTTTTTTTTTTTAAGAAGAAAAGATGTGTTCTG  
 CATTTCTGGAAGTCTATGCTGCATTTCCATTTGTTGAAATTTAAGACCAGAGTCATCTTTCTGCTGTA  
 ATTATAATGGTCACTGGCTTGTGCCTTTTCTCCTCTCTCTGCCCCATCTGCACGGGGTCTTTGAACAA  
 GTCCCAGCACCTTGGTGGACAAGCCTGTGTCCCTGGCCCATCATGGAAGCCGCTGCCTTTAGAGTGGG  
 AGTCTGTACCCTGTTGCCTCATTCTTGTGCGCCCATGAGTGAGCTTGTGCCTGACCTCTCCTCCAG  
 GTGGACTTACACACTGGGCTGTGCGAGTTCTCGGTGACGACGCGCGGCTGGCCCATGGCTGGAATGAG  
 TTTGTTGCTGACAACAGCGAACCTGTGTGGAAGAAATACCTGGATCAGTTTAAGAACCCCTGATCCTG  
 CTGCTGCTGGGCTCTGCCCTGGTGAGTGTCTCACCAGGAGTATGAGGACGCCGTCAGCATCACCACG  
 GCAGTGCTTGTCTGGTCACTGTGCGCTTCATCCAGGAGTACAGGTCGGAGAAATCTCTGGAAGAGCTG  
 ACCAAGCTGGTTCTCCAGAATGTAAGTGCCTAAGAGAAGGAAAACCTCCAGCACCTGCTTGTCTCGAGAA  
 CTGGTTCTGGTGATGTCGTATCTCTCGATCGGAGACCGGATCCCTGCAGACATCCGACTCACTGAG  
 GTCACGGACCTCTTGGTGGATGAATCCAGTTTACCGGGGAAGCCGAGCCATGTAGTAAAACAGACAGC  
 CCCTTGACAGGCGGTGGGACCTCACCACCCTCAGCAACATCGTCTTCATGGGGACCTGGTGCAGTAT  
 GGGAGGGGCCAGGGGTCGTGATTGGAACAGGGGAAAGCTCTCAGTTCGGAGAAGTGTAAAGATGATG  
 CAGGCTGAAGAGACACCTAAATCCTTTGCAGAAAAGCATGGACAGGCTAGGAAAGCAACTGACACTC  
 TTCTCCTTTGGCATAATCGGTCTCATCATGCTCATTGGCTGGTCGCAAGGGAACAACCTCCTGAGTATG


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TTCACGATCGGGGTGAGCCTGGCTGTGGCGGCCATTCCAGAGGGTCTGCCCATCGTCGTCATGGTGACG  
 CTGGTCTCTGGGAGTGCTGCGGATGGCCAAGAAGCGGGTCATCGTGAAGAAGTTACCCATCGTGGAGACT  
 TTAGGTTGCTGCAGCGTTCTCTGTTCTGACAAGACGGGACTCTGACTGCCAATGAAATGACAGTGACC  
 CAGCTTGTAAAGTCAGATGGGCTTCGTGCCGAGGTGAGCGGAGTTGGGTATGACGGTCAAGGGACTGTG  
 TGTCTTACCATCCAAGGAAGTCATTAAGGAATTTCCAATGTCTCAGTGGGAAAGTTAGTGGAGGCG  
 GGCTGTGTTGCCAACATGCGGTATCAGAAAGAACGCCGTGATGGGCGAGCCACCGAGGGTGCATTG  
 ATGGCCCTGGCGTTGAAGATGGACTTAAGTGATATTAATAATTCATATATAAGAAAAAGAGATTCCA  
 TTCAGTTTCAGAGCAGAAGTGAGTGGCGGTGAAATGCAGTCTGAAGACTGAGGATCAGGAAGACATTAC  
 TTCATGAAAGGGGCTTGAAGAGGTGATCCGCTACTGCACCATGTACAACAACGGGGGCATCCCCCTG  
 CCGCTGACGCCCCAGCAGAGGTCTTCTGCCTGCAGGAAGAGAAGAGGATGGGGTCGCTCGGTTTGGCG  
 GTGCTGGCCCTGGCTTCTGGGCCGAGCTGGGCGGCTGACGTTTCTAGGTCTTGTGGGCATCATTGAC  
 CCCCCGAGAGTTGGCGTGAAGGAAGCAGTCCAGGTTCTCTCCGAGTCTGGTGTGCTGTGAAGATGATA  
 ACGGGGATGCCCTGGAGACGGCCTTGGCCATAGGAAGAAACATCGGCCTGTGAACGGGAAGCTGCAA  
 GCCATGTCCGGGAGGAGGTGGACAGCGTGGAGAAGGGCGAGCTGGCCGACCGCTGGGGAAGGTGTCC  
 GTGTTCTTCAGGACCAGCCAAAGCACAAGCTCAAAATCATCAAGGCTCTGCAGGAGTCAAGGGCAATC  
 GTGGCCATGACTGGGGATGGGGTGAACGACGAGTGGCCCTGAAGTCTGCAGACATTGGGATCGCCATG  
 GGGCAGACAGGGACGGAGCTCAGCAAAGAGGCCCAACATGATCCTGGTGGATGATGACTTCTACGCC  
 ATCATGAATGAGTGGAGGAAGGCAAGGATATTTTTACAACATCAAAAATTTGTCCGATTCCAGCTG  
 AGCAGGAGCATCTCCGCCCTGAGTCTCATCACTCTGTCCACCGTGTCAACCTGCCAGCCCCCTCAAC  
 GCCATGCAGATCCTATGGATCAACATCATGATGGATGGGCCACCGGCGCAGAGCTTGGGGTAGAGCCT  
 GTTGACAAAGACGCTTCAGGCAGCCACCGAGTGTGCGGGACACCATCCTCAGCAGAGCCCTCATC  
 CTGAAGATCCTCATGTCCGCGGCCATCATCATCAGCGGGACCCTCTTTATCTTCTGGAAGGAGATGCCT  
 GAAGCAGAGCAAGCACTCCCCGACCACGACGATGACGTTCACTTGTGTTTTGTGTTTTTCGATCTCTTC  
 AACGCCTTGACCTGCCGCTCTCAGACCAAGCTGATATTTGAGATCGGCTTTCTCAGGAACCATGTTC  
 CTCTACTCCGTCCTGGGGTCCATCCTGGGCGAGTGGCGGTCAATTACATCCCCCGCTGCAGAGGGTC  
 TTCCAGACGGAGAACCTGGGAGCGCTTGATTTGCTGTTTTTAAGTGGATTGGCCTCATCCGCTTTCATT  
 TTGTCAGAGCTCCTCAACTATGTGAAAAATACTGTTGCAGCCCCAAGAGAGTCCAGATGCACCCTGAA  
 GATGTGTAGTGGACCGCACTCCGCGGCACCTTCCCTAATCATCTCGATCTGGTTGTGACTGTGGCCCT  
 GCCGTGTCTCTCGTCAGGGGAGACTTTTAGGAGGCGCAGCCTTCCATCACCAGGATCAGTTTTCTCTC  
 TTAGGAAAGCTGCAGGAACCTCGTGGGCTCCAGGGACCCAGGCCACATCCATCCAGCGTCCCGCTGG  
 CTGTGGGACAGACAGGGAGGGGCTGTACAGAAACACCACACTGTTTATTAATCACAATGATTTTTAT  
 TAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_014861 unedited  
 CAAGAATAGGAACGACTACTATAGGCGGCCGGAATTCGCACGAGCTCTCATGGGAGGG  
 TCTTAAGACCCACAGTCAGCAAAGCGGGTTACATTAGCATCTCCAGTATTCTTTTCATCT  
 TGTAAGAACTGAATCTGTCTCCATTAACACTCACTCCCCATTCCCTCTCCCTCCAGCCTC  
 TGACACCCACCATCTACTTTCTGTCTCTATGAATTTGACTAGTCTATGAATTCATATG  
 TGGAAATCAACAGAATTTGTCTTTTGTGACTGGTTTATTTCACTTAACCTCATCCTCAAG  
 GTTCAACTTAAAGGTGTATCCATGTTGTAGCACGTGTCAGCATTTTCTTTCGTTCTCAGG  
 CTAATAAGTATTTCAATTGTGTGTACACCATGTTTCATGCATTATTATCCCTTGAAA  
 GATTGGTGGGTTGCTTCTCTCTTTTGTGTTTGTGAACAGTGCTACGAACATGGTTGTAC  
 AAACATCTCTGGAGCCCCACTAGCAGTTCCCTTGGGTATATACCCCAAAGTGGAATTGC  
 TGGATCTGGTAGCTCCCTCTCTAATTCTTTGAGGAATCGCCACACAGTTTCCATAACAGC  
 TGCACCATTTTACATTTCCCAAGACCTTTTTTTTTTTTTTTTTTTTAAACAAGAAAAGAGTGC  
 TCCTGCATTTCTGGAAGCCTATGCTGCATTTCCATTTGGTGAATTCAGAACACAGCCAT  
 CTTTTCTGCTGTAAATTATAATGGTCACTGGCTTGTGCCCTTTCCCCCCTTCTCTGGGCC  
 ATATGCACCGGGGTCTTTTGAACAGTCCCAGCACCTGGTTGCACAACCTGTGCCCTG  
 CCCATCATGGAACCCCTGCCTCTCAGAATGGAAGACTTACACCTGTTGCCTCAATCCTT  
 GCTCGCCCAACGAGAAAATNGGCCCTGACCTCTCCTTCCAGGTGGACTACCCCTGGCCT  
 GCCG

**Restriction Sites:**

Sgfl-MluI

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ACCN:</b>                  | NM_014861                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Insert Size:</b>           | 3843 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>OTI Disclaimer:</b>        | 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).                                                                                                                                                                          |
| <b>OTI Annotation:</b>        | 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.                                                                                                                                                                                                                                                      |
| <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>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <u>NM_014861.1</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>RefSeq Size:</b>           | 3600 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq ORF:</b>            | 3843 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 9914                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>UniProt ID:</b>            | <u>O75185</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 16q24.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Domains:</b>               | E1-E2_ATPase, Cation_ATPase_N, Hydrolase, Cation_ATPase_C                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>MW:</b>                    | 141.7 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Gene Summary:</b>          | <p>This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the transport of calcium.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) lacks an alternate in-frame exon, compared to variant 1. The resulting isoform (2) is shorter than isoform 1.</p>                                                                                                                                                                                                                  |