

## Product datasheet for SC305965

### Synaptopodin 2 (SYNPO2) (NM\_133477) Human Untagged Clone

#### Product data:

|                      |   |
|----------------------|---|
| Product Type:        | Expression Plasmids   |
| Product Name:        | Synaptopodin 2 (SYNPO2) (NM_133477) Human Untagged Clone  |
| Tag:                 | Tag Free  |
| Symbol:              | SYNPO2  |
| Vector:              | <u>pCMV6 series</u>   |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_133477, the custom clone sequence may differ by one or more nucleotides |

```

ATGGGCACAGGGGATTTTATCTGCATTTCCATGACTGGAGGGGCGCCCTGGGGGTTTCAGA
TTGCAAGGTGGCAAGGAGCAGAAGCAGCCCTTACAAGTTGCAAAGATTGAAATCAGAGC
AAAGCCTCTGGGTCTGGGCTCTGTGAGGGAGATGAAGTGGTTTCCATCAATGGCAACCCT
TGTGCAGATCTCACCTACCCTGAAGTCATCAAGCTCATGGAAAGCATAACAGACTCTCTC
CAAATGCTCATCAAAGACCATCCAGTGAATAAGTGAGGCTTTGATATCTGAAAATGAA
AACAAAAACCTCGAGCATCTCACACATGGGGTTATGTGGAAAGTACCACCCTGCAGATT
CGACCGGCCACAAAGACCAGTGCACAGAATTCTCCTCGCCCCTGTCAAGACTGAAGTT
CCCTAGCTGAGAACCAAGAAGTGGTCCCGACTGTGCAGGCAGCTTGAAAGAAGAAACA
GGCCCCGAGCTACCAAAGGCTCCCCAAATGCCTGACTCCCAAAGAGGACGCTGGCAGAA
GAGCTGATCTTAAGGGAGAAGGTAGAAGCGGTACAGCCTGGGCCTGTGGTTGAGCTGCAA
CTGTCCCTTTACAGGAGAGACATAAGGGCGCTAGTGGCCCTTTAGTGGCTCTCCCGGA
GCTGAAAATCTAAGTCTCCTGACCCAGACCCTAATTGTACATGACAGGATTGTCCAC
ATAAATTCGATCCCTACTAATGAGAAAGCAGACCCTTCTCTGAGGTCCAGCAAGATAATC
CAGATCTCCAGTGGCAGAGAGTTGAGAGTGATCCAGGAAAGTGAAGCAGGAGATGCGGGA
CTGCCCGGGTGAAGTGATCCTCGACTGCTGTGACAGGCAGAAGACAGAAGGGTGCAGG
CTTCAGGCAGGAAAGGAGTGTGTGGATTCTCAGTGGAAGGAGGGCAGTCAGAAGCACCT
CCTTCTCTGGTATCCTTTGCCGTCTCATCAGAAGGCACAGAGCAGGGAGAAGATCCACGC
TCGGAAAAAGATCACAGCAGACCTCACAAGCACCGAGCGCGGCATGCACGGCTCAGGAGG
AGTGAAAGCCTGTGAGAAAAACAAGTGAAGGAAGCAAAATCTAAATGCAAAGCATTGCC
CTTCTTAAACGGATGCTCCCAACCCCAACTCCAAGGGGGTGTGATGTTAAGAAGCGA
CGTCCGAGGGCCAGGAAATACACCCTAGTTAGCTACGGTACTGGCGAGCTTGAGCGAGAG
GCGGACGAGGAGGAAGAAGGTGACAAGGAGGATACATGTGAAGTAGCATTCTTGGTGCA
AGCGAATCAGAGGTGGATGAAGAGTTATTGTCTGACGTTGACGACAACACACAAGTTGTG
AACTTTGACTGGGATTCTGGACTGGTGGACATTGAAAAGAACTGAACAGAGGGGACAAG
ATGGAGATGTTACCAGACACCACAGGCAAGGGAGCCCTCATGTTTGCCAAGAGGAGGGAG
AGAATGGATCAGATCACAGCCAAAAAGAAGAGGACAAGGTAGGTGGAACGCCAAGCAGA
GAACAAGATGCTGCCAGACCGATGGCCTGAGAACCACGACTTCTTACCAAAGAAAGGAG
GAAGAGTCGGTAAGAACGCAGAGCTCTGTGAGCAAAAGCTACATCGAGGTGAGTCATGGT
CTTGGCCATGTTCCCAACAGAATGGCTTCAGTGGGACATCTGAGACAGCAAACATCCAG
AGGATGGTCCCCATGAATAGAACGGCCAAACCCTCCAGGGTCTGTGAATCAGCCAGCT
ACCCCTTCTCGCAACCCGAAACATGACGAGTCCCATGCTGACTTCTCGACCTCCA

```



[View online »](#)

```

CCTTACTCTGCAGTCACTCCTCCCCCTGACGCCTTCTCCAGAGGGGTTTCAAGTCCGATT
GCTGGCCCAGCACAGCCCCCTCCATGGCCCCAGCCTGCCCGTGGTCCCAGCCAGCCTTT
TACGATTTCGTCTGAGCGAATAGCTTCCCAGATGAGAGGATCTCAGTGCCAGCAAAAAGA
ACAGGAATATTGCAGGAGGCCAAAAGGAGAAGCACGACAAAACCCATGTTACTTTTAA
GAGCCCAAAGTAAGCCCAAATCCTGAACTTTGTCACTCCTTCAAATTCAGAAGGCAAA
CGGGCAGCTGGAGCTGGAGGTGATTCGGACCGGAAGAAGACTACCTCAGCTTGGGGCA
GAGCCTTGTAATTCATGCAAAGCTCCTCTGCCAAAACAAAAGACCCCTCCTCTGTGCT
CCAAAACCTGCAGTCAAGTCTCATCCTCCCAACCAAGTAACTCCAGTTTCCCCAGTCTGG
TCTCCAGGAGTGGCTCCCACCCAACCTCCTGCCTTCCCCACATCCAACCCATCAAAGGGC
ACCGTTGTCTCCTCCATCAAATAGCCCAGCCTTCTTACCCTCCTGCCCGGCTGCAAGT
ACTTTGAACGTGGCTGGTCCCTTCAAAGGACCACAAGCAGCAGTAGCCAGTCAGAATTAC
ACACCCAAACCAACAGTTTCCACACCAACAGTCAATGCTGTTGAGCCTGGTGCAGTGGGA
CCATCCAATGAGCTTCCAGGAATGAGTGGGAGAGGAGCTCAGCTCTTTGCTAAAAGGCAG
TCGAGAATGGAGAAGTATGTGGTCGATTACAGACACGGTGCAGGCCACGCTGCTCGAGCT
CAGTCTCCCACTCCATCTCTCCCGCCAGTTGGAAGTACTCCTCCAATGCCGAGCACCT
CCTCCTGTGGCCTATAATCCTATCCACTCGCCGCTTACCCTACTGGCTGCTCTCAAGTCT
CAGCCATCAGCTGCACAGCCCTCCAAAATGGGCAAGAAAAGGGAAAGAAACCCCTCAAT
GCATTAGATGTCATGAAGCACCAACCGTATCAGCTCAATGCATCCTTGTTACTTTCCAA
CCTCCAGATGCAAAGGATGGCCTCCCCCAGAAGTCATCAGTCAAGGTCAATTCAGCCCTG
GCCATGAAGCAAGCTCTTCTCCCGGCCAGTGAATGCTGCCTCACCTACGAATGTGCAG
GCTTCGTGAGTACTCGGTACCAGCCTATACCTCTCCTCCTTCTTTGTCAGAGGCC
TCCTCACCAGTCAGTGCATCCCCAGTGCCTGTGGGCATTCCCACCTCGCCAAAGCAAGAA
TCAGCCTCATCTTTATTTGTGGCACCAAGGCCAAAGTTCTCAGCCAAGAAAAGTGGT
GTCACAATTCAGGAGAGTGGGCGCTCCCTTTCTTCTTCTGGAAGATCAGTCCCACCCCC
ATTTCTACATCTCCTTGGGTATACCAGCCTACTTATAGTACTCTAGTAAACCAACCGAT
GGACTAGAGAAAGCAAACAAGAGACCAACTCCTTGGGAAGCAGCAGCAAAGTCTCCTCTC
GGTCTAGTGGATGATGCTTTCCAACCCAGAAACATCCAGGAATCCATTGTGGCAAATGTG
GTTTCAGCAGCTCGGAGGAAGGTGCTTCCAGGGCCTCCAGAGGATTGGAATGAAAGACTG
TCCTATATTCTCAAACCCAGAAGGCCTATATGGGCTCATGTGGAAGGCAAGAGTATAAT
GTCACAGCCAATAATAATATGTCCACCACCTCCCAATATGGTTACAGTTGCCATATGCA
TATTATAGGCAGGCTTCAAGAAATGATTCTGCAATCATGTCCATGGAAACAGGTCTGAT
TACTGTCTCCAGTAGCTGATTACAACCTACAACCCACACCCAAGGGGATGGAGACGCCAA
ACATGA
    
```

- Restriction Sites:** Please inquire
- ACCN:** NM\_133477
- 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\\_133477.1](#), [NP\\_597734.1](#)

**RefSeq Size:** 7318 bp

**RefSeq ORF:** 3786 bp

**Locus ID:** 171024

**UniProt ID:** [Q9UMS6](#)

**Cytogenetics:** 4q26

**Gene Summary:** Has an actin-binding and actin-bundling activity. Can induce the formation of F-actin networks in an isoform-specific manner (PubMed:24005909, PubMed:23225103). At the sarcomeric Z lines is proposed to act as adapter protein that links nascent myofibers to the sarcolemma via ZYX and may play a role in early assembly and stabilization of the Z lines. Involved in autophagosome formation. May play a role in chaperone-assisted selective autophagy (CASA) involved in Z lines maintenance in striated muscle under mechanical tension; may link the client-processing CASA chaperone machinery to a membrane-tethering and fusion complex providing autophagosome membranes (By similarity). Involved in regulation of cell migration (PubMed:22915763, PubMed:25883213). May be a tumor suppressor (PubMed:16885336). [UniProtKB/Swiss-Prot Function]  
Transcript Variant: This variant (1) encodes the longest isoform (a).