

## Product datasheet for **RR217568**

### Synpo2 (NM\_001191963) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Synpo2 (NM\_001191963) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Synpo2  
**Synonyms:** RGD1564779  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR217568 representing NM\_001191963  
Red=Cloning site Blue=ORF Green=Tags(s)

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CAGGCGGAGGATCAGATGCCCTACAGACGGACGGTCTGAGAACCATGACTTCTTATCAAAGAAAAGAAGA  
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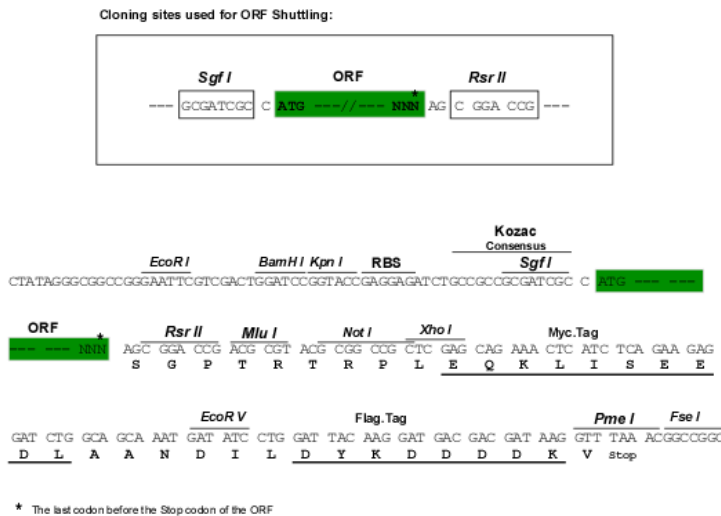
Protein Sequence: >RR217568 representing NM\_001191963  
 Red=Cloning site Green=Tags(s)

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 A PRTEQGNAGWYAECTTEDQVSQMPGSEQEHLVEEVILRKKPEAGQPGHVVELQLSLSKERQCTSDPIV  
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 KPSAPTPLVNAAPAGAGGPSNELPGMSGKAQLFAKRQSRMEKYVVDSDTVQAHTVRAQSPTPSLPASWK  
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 SVPTSPKQETTSTSYFVAPRPKFSAKKSGVTQENWRSLSLPGRAAPPIMSAPPWLCPAYSYSKPTLE  
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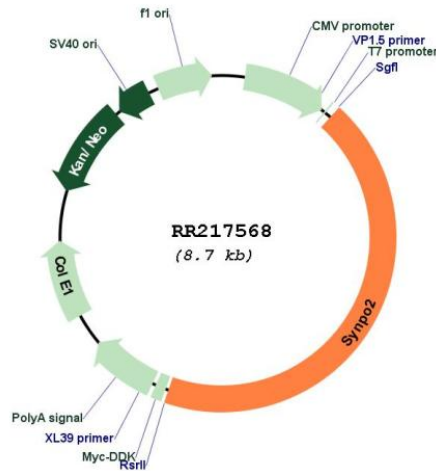
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



## Plasmid Map:



ACCN: NM\_001191963

ORF Size: 3786 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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\\_001191963.1](#), [NP\\_001178892.1](#)

RefSeq Size: 4092 bp

RefSeq ORF: 3789 bp

Locus ID: 499702

UniProt ID: [D4A702](#)

Cytogenetics: 2q42

**MW:** 136 kDa

**Gene Summary:**

Has an actin-binding and actin-bundling activity. Can induce the formation of F-actin networks. 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 (By similarity). 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 (PubMed:23434281). Involved in regulation of cell migration. May be a tumor suppressor (By similarity).[UniProtKB/Swiss-Prot Function]