

Product datasheet for **RC215728**

Synaptopodin 2 (SYNPO2) (NM_133477) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Synaptopodin 2 (SYNPO2) (NM_133477) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SYNPO2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC215728 representing NM_133477 Red=Cloning site Blue=ORF Green=Tags(s)

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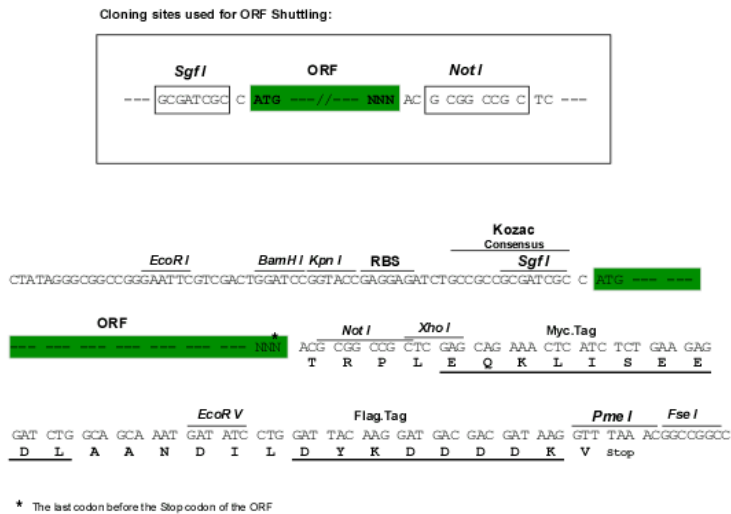
Protein Sequence: >RC215728 representing NM_133477
 Red=Cloning site Green=Tags(s)

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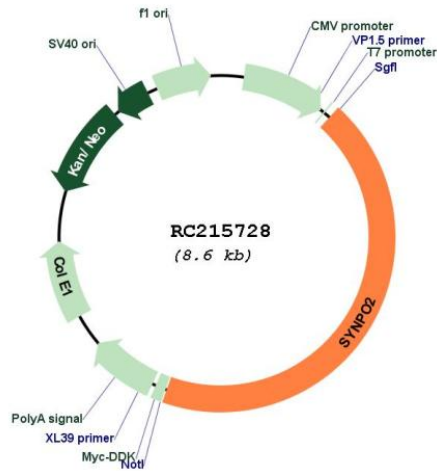
TRRL**E**Q**L**I**S**E**E**D**L**A**A**N**D**I**L**D**Y**K**D**D**D**D**K**V

Restriction Sites: SgfI-NotI

Cloning Scheme:



Plasmid Map:



ACCN: NM_133477

ORF Size: 3783 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_133477.1](#), [NP_597734.1](#)

RefSeq Size: 7318 bp

RefSeq ORF: 3786 bp

Locus ID: 171024

UniProt ID: [Q9UMS6](#)

Cytogenetics: 4q26

MW: 136.2 kDa

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]