

## Product datasheet for **RC228969**

### Synaptotagmin 3 (SYT3) (NM\_001160328) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Synaptotagmin 3 (SYT3) (NM_001160328) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Synaptotagmin 3
Synonyms:	SytIII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC228969 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCAGGAGACTACGAGGATGACCTCTGCCGGCGGCACTCATCTGGTCTCGGACCTCTGTGCGCGGG  
 TCCGAGATGCTGACACCAACGACAGGTGCCAGGAGTTCAATGACCGAATCCGAGGCTATCCCGGGGTCC  
 AGATGCAGACATCTCCGTGAGCCTGCTGTGCGTATCGTGACATTCTGTGGCATTGTCTCTCGGGTGTCT  
 TCTCTCTCGTGTCTGGAAGTTGTGCTGGGTGCCCTGGCGGGACAAGGGAGGCTCGGCAGTGGCGGGT  
 GCCCCTGCGCAAAGACCTAGGCCCTGGTGTGGGCTGGCAGGCTGGTAGGCGGAGGCGGGCACCACCT  
 GGCGGCTGGCCTGGTGGCCATCCTCTGCTGGCGGCCACACCACCATGCCATGCCGCCACCATCCA  
 CCCTTTGCTGAGTGTGGAGCCAGGCAGCCTGGGGGTCTGACACCCCTGAGCCCTCTACTTGGACA  
 TGGACTCGTATCCAGAGGCTGCAGCAGCAGCAGTGGCCGCTGGGGTCAAACCGAGCCAAACATCCCTGA  
 GCTGCCCTCTGAGGGGGAGCAGGCTCTGGGTTGCTCTGCTGCCCCAGTGGTGGGGCTTGCCAGT  
 GCCAGTCACATCAGCAGGTCACAAGCCTGGCACCCTACCAGGTACCCAGCCCTGCCCGACCCCTCA  
 CCCAGCAGACTCTGACCTCCCAGCCGGACCCAGCAGTGAAGGAGCGCCACCTGCCTGCCTTACCCT  
 GCCTGGAGGCGAGGAAAAGCCAAACTCATTGGGCAGATTAAGCCAGAGCTGTACCAGGGGACTGGCCCT  
 GGTGGCCGGCGGAGCGGTGGGGGCCAGGCTCTGGAGAGGCAGGCACAGGGGCACCCTGTGGCCGTATCA  
 GCTTCGCCTGCGGTACCTCTATGGCTCGGACCAGCTGGTGGTGAAGATCCTGCAGGCCATGGACCTCCC  
 TGCCAAGGACTCCAACGGCTTCTCAGACCCCTACGTCAAGATCTACCTGCTGCCTGACCGCAAGAAAAG  
 TTTCAGACCAAGGTGCACAGGAAGACCCTGAACCCGCTTCAATGAGACGTTTCAATTCTCGGTGCCCC  
 TGGCCGAGCTGGCCCAACGCAAACCTGCACCTCAGCGTCTATGACTTTGACCGCTTCTCGCGCAGCAGCT  
 CATCGGCCAGGTGGTGTGGACAACCTCCTGGAGCTGGCCGAGCAGCCCTGACCGCCGCTCTGGAGG  
 GACATCGTGGAGGGCGGCTCGGAAAAGCAGATCTTGGGAGCTCAACTTCTCACTCTGCTACCTCCCA  
 CGGCCGGCGCCTCACCGTGACCATCATAAAGCCTCTAACTCAAAGCGATGGACCTACTGGCTTCTC  
 AGACCCCTACGTGAAGCCTCCCTGATCAGCGAGGGCGGCGTCTGAAGAAGCGGAAAACCTCCATCAAG  
 AAGAACACGCTGAACCCACCTATAATGAGGCGTGGTGTTCGACGTGGCCCGGAGAGCGTGGAGAACG  
 TGGGGCTCAGCATCGCCGTGGTGGACTACGACTGCATCGGGCACAACGAGGTGATCGGCGTGTGCCGTGT  
 GGGCCCGCAGCTGCCGACCCGACGGCCGCGAGCACTGGGCAGAGATGCTGGCCATCCCCGAAGCCC  
 GTGGAGCACTGGCATCAGCTAGTGGAGAAAAGACTGTGACCAGCTTACAAAAGGCAGCAAAGGACTAT  
 CAGAGAAAAGAACTCCGAG

**ACGCGT**ACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC228969 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGDYEDDLRRALILVSDLCARVRDADTNDRCQEFNDRIRGYPRGPDADISVSLLSVIVTFCGIVLLGV  
 SLFVSWKLCWVPWRDKGSAVGGPLRKDLGPGVGLAGLVGGGHHLAAGLGGHPLLGGPHHHAAHHP  
 PFAELLEPGSLGGSDTPEPSYLDMSYPEAAAAVAAGVKPSQTSPELPSEGGAGSGLLLLPPSGGGLPS  
 AQSHQVTS LAP TTRY PAL PRPL TQQT L TSQDP S SEERPPAL PLPLPGGEEKAKLIGQIKPELYQGTGP  
 GRRSGGGPGSGEAGTGAPCGRISFALRYLYGSDQLVVRILQAMDLPKDSNGFSDPYVKIYLLPDRKKK  
 FQTKVHRKTLNPVNETFQFSVPLAELAQKRLHFSVYDFDRFSRHLIGQVVLNLELAEQPPDRPLWR  
 DIVEGGSEKADLGELNFSLCYLPTAGRLTVTIKASNLKAMDLTGFSDPYVKASLISEGRRLLKRRKTSIK  
 KNTLNPTYNEALVFDVAPESVENVGLSIAVVDYDCIGHNEVIGVCRVGPDAADPHGREHWAEMLANPRK  
 VEHWHLVEEKTVTSFTKGSKGLSEKENSE

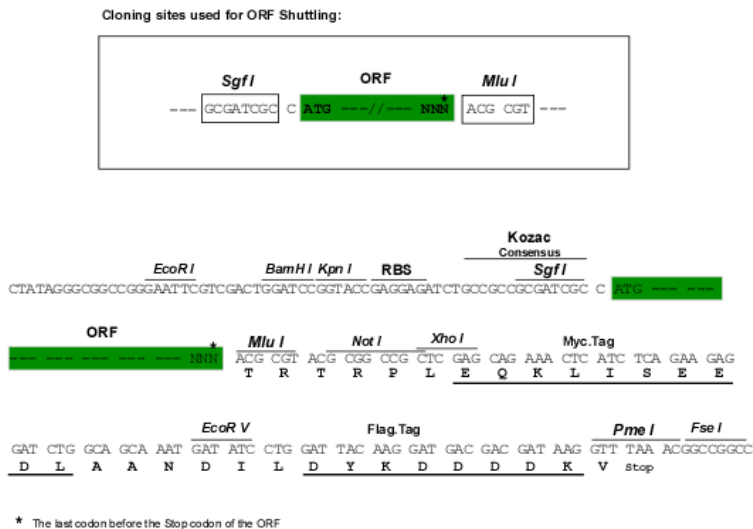
**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6318\\_h02.zip](https://cdn.origene.com/chromatograms/mk6318_h02.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001160328

ORF Size: 1770 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\\_001160328.1](#), [NP\\_001153800.1](#)

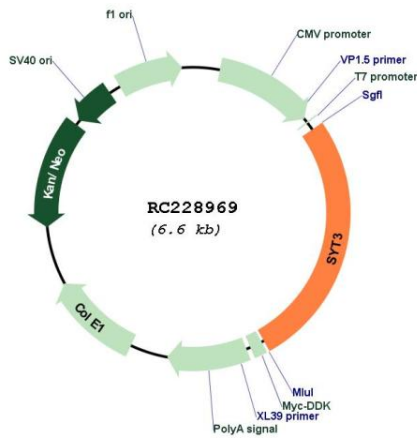
RefSeq Size: 2857 bp

RefSeq ORF: 1773 bp

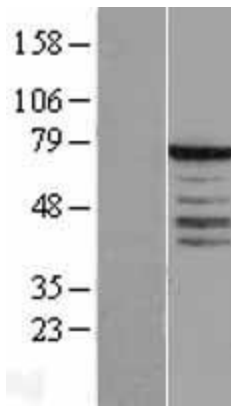
Locus ID: 84258

**UniProt ID:** [Q9BQG1](#)  
**Cytogenetics:** 19q13.33  
**Protein Families:** Secreted Protein, Transmembrane  
**MW:** 63.3 kDa  
**Gene Summary:** Ca(2+) sensor involved in Ca(2+)-dependent exocytosis of secretory vesicles through Ca(2+) and phospholipid binding to the C2 domain. Ca(2+) induces binding of the C2-domains to phospholipid membranes and to assembled SNARE-complexes; both actions contribute to triggering exocytosis (By similarity). Plays a role in dendrite formation by melanocytes (PubMed:23999003).[UniProtKB/Swiss-Prot Function]

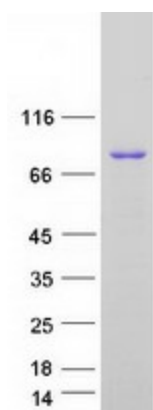
**Product images:**



Circular map for RC228969



Western blot validation of overexpression lysate (Cat# [LY431997]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228970] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SYT3 protein (Cat# [TP328969]). The protein was produced from HEK293T cells transfected with SYT3 cDNA clone (Cat# RC228969) using MegaTran 2.0 (Cat# [TT210002]).