

Product datasheet for **RC228970**

Synaptotagmin 3 (SYT3) (NM_001160329) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Synaptotagmin 3 (SYT3) (NM_001160329) 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)



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ORF Nucleotide Sequence:

>RC228970 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCAGGAGACTATGAGGATGACCTCTGCCGGCGGGCACTCATCTGGTCTCGGACCTCTGTGCGCGGG
 TCCGAGATGCTGACACCAACGACAGGTGCCAGGAGTTCAATGACCGAATCCGAGGCTATCCCGGGGTCC
 AGATGCAGACATCTCCGTGAGCCTGCTGTCCGTATCGTGACATTCTGTGGCATTGCTCTCTGGGTGTC
 TCTCTCTCGTGTCTGGAAGTTGTGCTGGGTGCACTGGCGGGACAAGGGAGGCTCGGCAGTGGCGGGT
 GCCCCTGCGCAAAGACCTAGGCCCTGGTGTGGGCTGGCAGGCCTGGTAGGCGGAGGCGGGCACCACCT
 GGCGGCTGGCCTGGTGGCCATCCTCTGCTGGCGGCCACACCACCATGCCATGCCGCCACCATCCA
 CCCTTTGCTGAGTGTGGAGCCAGGCAGCCTGGGGGTCTGACACCCCTGAGCCCTCTACTTGGACA
 TGGACTCGTATCCAGAGGCTGCAGCAGCAGCAGTGGCCGCTGGGGTCAAACCGAGCCAAACATCCCTGA
 GCTGCCCTCTGAGGGGGAGCAGGCTCTGGGTTGCTCTGCTGCCCCAGTGGTGGGGGCTTGCCAGT
 GCCAGTCACATCAGCAGGTCACAAGCCTGGCACCCTACTACAGGTACCCAGCCCTGCCCGACCCCTCA
 CCCAGCAGACTCTGACCTCCCAGCCGGACCCAGCAGTGAAGGAGCGCCACCTGCCTGCCTTACCCT
 GCCTGGAGGCGAGGAAAAGCCAAACTCATTGGGCAGATTAAGCCAGAGCTGTACCAGGGGACTGGCCCT
 GGTGGCCGGCGGAGCGGTGGGGGCCAGGCTCTGGAGAGGCAGGCACAGGGGCACCCTGTGGCCGTATCA
 GCTTCGCCTGCGGTACCTCTATGGCTCGGACCAGCTGGTGGTGAAGATCCTGCAGGCCCTGGACCTCCC
 TGCCAAGGACTCCAACGGCTTCTCAGACCCCTACGTCAAGATCTACCTGCTGCCTGACCGCAAGAAAAG
 TTTCAGACCAAGGTGCACAGGAAGACCCTGAACCCCGTCTTCAATGAGACGTTTCAATTCTCGGTGCCCC
 TGGCCGAGCTGGCCCAACGCAAACCTGCACCTCAGCGTCTATGACTTTGACCGCTTCTCGCGGACGACCT
 CATCGGCCAGGTGGTGTGGACAACCTCCTGGAGCTGGCCGAGCAGCCCTGACCGCCGCTCTGGAGG
 GACATCGTGGAGGGCGGCTCGGAAAAGCAGATCTTGGGAGCTCAACTTCTCACTCTGCTACCTCCCCA
 CGGCCGGGCGCCTCACCGTGACCATCATCAAAGCCTCTAACTCAAAGCGATGGACCTACTGGCTTCTC
 AGACCCCTACGTGAAGCCTCCCTGATCAGCGAGGGGCGGCTCTGAAGAAGCGGAAAACCTCCATCAAG
 AAGAACACGCTGAACCCACCTATAATGAGGCGTGGTGTTCGACGTGGCCCCGAGAGCGTGGAGAACG
 TGGGGCTCAGCATCGCCGTGGTGGACTACGACTGCATCGGGCACAACGAGGTGATCGGCGTGTGCCGTGT
 GGGCCCCGACGCTGCCGACCCGACGGCCGCGAGCACTGGGCAGAGATGCTGGCCATCCCCGAAGCCC
 GTGGAGCACTGGCATCAGCTAGTGGAGAAAAGACTGTGACCAGCTTACAAAAGGCAGCAAAGGACTAT
 CAGAGAAAAGAACTCCGAG

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228970 protein sequence
 Red=Cloning site Green=Tags(s)

MSGDYEDDLRRALILVSDLCARVRDADTNDRCQEFNDRIRGYPRGPDADISVSLLSVIVTFCGIVLLGV
 SLFVSWKLCWVHWRDKGSAVGGPLRKDLGPGVGLAGLVGGGHHLAAGLGGHPLLGGPHHHAHAHHP
 PFAELLEPGSLGGSDTPEPSYLDMSYPEAAAAVAAGVKPSQTSPELPSEGGAGSGLLLLPPSGGGLPS
 AQSHQVTS LAP TTRY PAL PRPL TQQTLSQPDPSSSEERPPALPLPLPGGEEKAKLIGQIKPELYQGTGP
 GRRSGGGPGSGEAGTGAPCGRISFALRYLYGSDQLVVRILQALDLPKDSNGFSDPYVKIYLLPDRKKK
 FQTKVHRKTLNPVNETFQFSVPLAELAQKRLHFSVYDFDRFSRHDLIGQVVDNLELAEQPPDRPLWR
 DIVEGGSEKADLGNLNFSLCYLPTAGRLTVTIKASNLKAMDLTGFSDPYVKASLISEGRRLLKRRKTSIK
 KNTLNPYNEALVFDVAPESVENVGLSIAVVDYDCIGHNEVIGVCRVGPDAADPHGREHWAEMLANPRK
 VEHWHLVEEKTVTSFTKGSKGLSEKENSE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6318_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001160329

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_001160329.1](#), [NP_001153801.1](#)

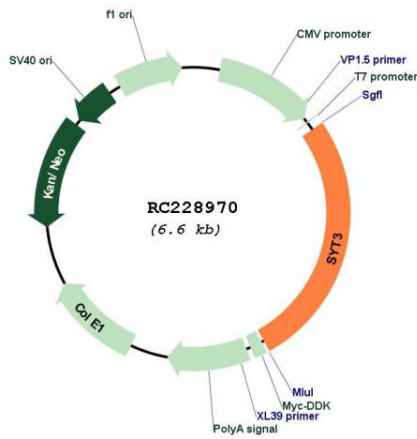
RefSeq Size: 2493 bp

RefSeq ORF: 1773 bp

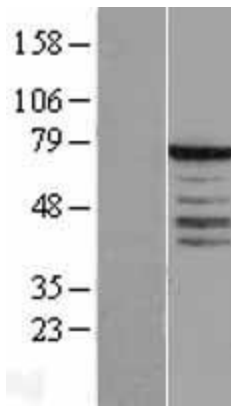
Locus ID: 84258

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]

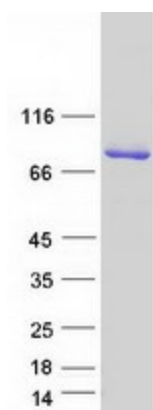
Product images:



Circular map for RC228970



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# [TP328970]). The protein was produced from HEK293T cells transfected with SYT3 cDNA clone (Cat# RC228970) using MegaTran 2.0 (Cat# [TT210002]).