

Product datasheet for **RC227105**

Synaptotagmin 1 (SYT1) (NM_001135805) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Synaptotagmin 1 (SYT1) (NM_001135805) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Synaptotagmin 1
Synonyms:	BAGOS; P65; SVP65; SYT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC227105 representing NM_001135805
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGT**GAGCGAGAGT**CACCAT**GAGGCCCTGGCAGCCCCGCTGT**CACCACT**GT**CGCGACT**GTTCTGCCAA**
 GCAATGCCACAGAGCCAGCCAGTCCTGGAGAAGGAAAGGAAGATGCATTTTCTAAGCTGAAGGAGAAGTT
 TATGAATGAGTTGCATAAAATTCATTGCCACCGTGGGCCTTAATTGCAATAGCCATAGTCGCAGTCCTT
 TTAGTCTGACCTGCTGCTTTTGTATCTGTAAGAAATGTTTGTTCAAAAAGAAAAACAAGAAGAAGGGAA
 AGGAAAAAGGAGGGAAGAATGCCATTAACATGAAAGATGTAAAAGACTTAGGGAAGACGATGAAAGATCA
 GGCCCTCAAGGATGATGATGCTGAAACTGGATTGACAGATGGAGAAGAAAAAGAAGAACCCAAAGAAGAG
 GAGAACTGGGAAAACCTCAGTATTCAGTGGATTATGATTTCCAAAATAACCAGCTGCTGGTAGGGATCA
 TTCAGGCTGCCGAACGCCCGCCTTGACATGGGGGCACATCTGATCCTTACGTGAAAGTGTCTGCTGCT
 ACCTGATAAGAAGAAGAAATTTGAGACAAAAGTCCACCGAAAAACCCCTAATCCTGTCTTCAATGAGCAA
 TTTACTTTCAAGGTACCATACTCGGAATGGGTGGCAAAACCCCTAGTGATGGCTGTATATGATTTTGATC
 GTTCTCTAAGCATGACATCATTGGAGAATTTAAAGTCCCTATGAACACAGTGGATTTTGGCCATGTAAC
 TGAGGAATGGCGTGACCTGCAAAGTGTGAGAAGGAAGAGCAAGAGAAATGGGTGATATCTGCTCTCC
 CTTGCTACGTACCTACTGCTGGTAAGCTGACTGTTGTCACTTCTGGAGGCAAGAACCTGAAGAAGATGG
 ATGTGGGTGGCTTATCCGATCCTTATGTGAAGATTCATCTGATGCAGAATGGTAAGAGGCTGAAGAAGAA
 AAAGACAACAATTAAGAAACACACTTAACCCCTACTACAATGAGTCATTCAGCTTTGAAGTACCTTTT
 GAACAAATCCAGAAAGTGCAGGTGGTGGTAACTGTTTTGGACTATGACAAGATTGGCAAGAACGATGCCA
 TCGGCAAAAGTCTTTGTGGGCTACAACAGCACCGCGCGGAGCTGCGACACTGGTCAGACATGCTGGCCAA
 CCCAGGCGACCTATTGCCAGTGGCACACCCTGCAGGTAGAGGAGGAAGTTGATGCCATGCTGGCCGTC
 AAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227105 representing NM_001135805
 Red=Cloning site Green=Tags(s)

MYSESHHEALAAPPVTTVATVLPNSATEPASPGEKEDAFSKLKEKFMNELHKIPLPPWALIAIAIVAVL
 LVLTCFCICKKCLFKKKKKGKEKGGKNAINMKDVKDLGKTMKDQALKDDDAETGLTDGEEKEEPKEE
 EKLKQLQYSLDYDFQNNQLLVGIIQAAELPALDMGGTSDPYVKVFLLPDKKKKFETKVHRKTLNPFNEQ
 FTFKVPYSELGGKTLVMAVYDFDRFSKHDIIIGEFKVPMTVDFGHVTEWRDLQSAEKEEQEKLGDICFS
 LRYVPTAGKLTVVILEAKNLKMDVGGLSDPYVKIHLMQNGKRLKKKTTIKKNTLNPYYNESFSFEVPP
 EQIQKVQVVVTVLDYDKIGKNDIIGKVFVGYNSTGAELRHWSMLANPRRPIAQWHTLQVEEVDAMLAV
 KK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3149_a09.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001135805

ORF Size: 1266 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_001135805.1](#), [NP_001129277.1](#)

RefSeq ORF: 1269 bp

Locus ID: 6857

UniProt ID: [P21579](#)

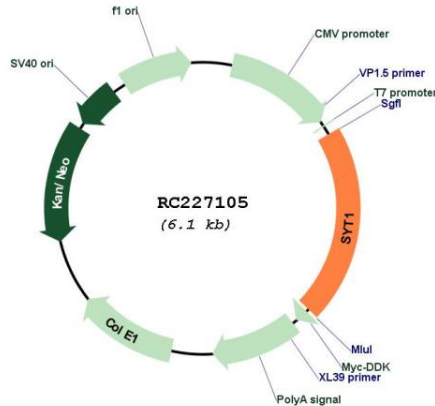
Cytogenetics: 12q21.2

Protein Families: Secreted Protein, Transmembrane

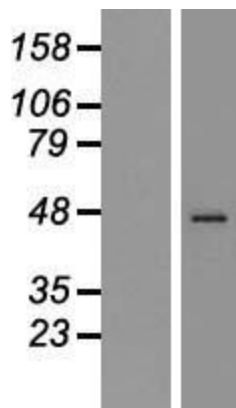
MW: 47.4 kDa

Gene Summary: The synaptotagmins are integral membrane proteins of synaptic vesicles thought to serve as Ca²⁺ sensors in the process of vesicular trafficking and exocytosis. Calcium binding to synaptotagmin-1 participates in triggering neurotransmitter release at the synapse (Fernandez-Chacon et al., 2001 [PubMed 11242035]).[supplied by OMIM, Jul 2010]

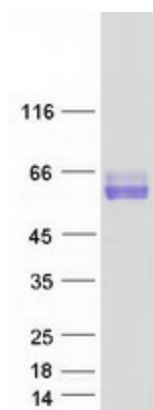
Product images:



Circular map for RC227105



Western blot validation of overexpression lysate (Cat# [LY427711]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227252] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SYT1 protein (Cat# [TP327105]). The protein was produced from HEK293T cells transfected with SYT1 cDNA clone (Cat# RC227105) using MegaTran 2.0 (Cat# [TT210002]).