

Product datasheet for **RC219395**

Synapsin III (SYN3) (NM_003490) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Synapsin III (SYN3) (NM_003490) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Synapsin III
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC219395 representing NM_003490
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATTTCTCCGGCGACGTCTCTGACAGCAGCTTTCATGGCCAACTGCCTAATGGCTATATGACGG
 ACCTGCAACGCCAGATAGCTCCACCAGCTCACCTGCTTCCCCGCCATGGAGAGGAGGCACCCCCAGCC
 CCTGGCTGCCTCCTTCTCTCTCCAGGATCCAGCCTTTTGTAGCTCCCTCTCCAGTGCATGAAGCAGGCC
 CCTCAGGCCACCTCAGGACTGATGGAGCCTCCAGGTCCCTCCACGCCATTGTTCAAAGACCCAGGATCC
 TGTGGTATCGATGATGCCATACAGACTGGTGAAGTATTTCCATGGGAAGAAGGTGAATGGAGAGAT
 TGAGATCCGAGTGGAGCAGGCTGAATTCTCAGAGTTGAACCTAGCTGCCTATGTGACCGGGGCTGCATG
 GTGGACATGCAGGTCGTGAGAAATGGACCAAAGTGGTGAAGCAGATCCTCAAGCCAGACTTCATCTGG
 TCCGCCAGCATGCCTACAGCATGGCCCTGGGGAAAGACTACCGCAGCCTGGTTCATCGGCCTGCAGTATGG
 AGGGCTGCCTGTCAACTCTCTACTCCGTCTACAACCTCTGCAGCAAGCCCTGGGTGTTCTCTCAG
 CTATTAAGATCTTCCATTCCCTGGGTCTGAGAAGTTCCCGCTTGTGGAGCAAACATTTTCCCAAC
 ATAAGCCAATGGTACAGCCCCACACTCCCGGTGGTAGTCAAGCTGGGACATGCCACCGCTGGAATGGG
 AAAGATCAAAGTGGAAAACAGCTTGAATCCAGGACATCACCAGCGTGGTCCGATGGCCAAAACCTAC
 GCCACCACCGAGGCCCTTCATCGACTCCAAGTACGACATCCGCATCCAGAAAATTGGATCCAACTACAAGG
 CTTACATGAGAACCTCCATCTCTGGAACTGGAAGGCCAACACAGGCTCTGCCATGTCTGGAGCAGGTGGC
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 GTCAAGGCTGTCCACAGCAAGGATGGCAGAGATTACATCATCGAGGTAATGGACAGCTCAATGCCGCTGA
 TTGGAGAGCATGTGGAAGAGGACAGACAGCTGATGGCCGACCTTGTGTCTCCAAAATGAGCCAGCTCCC
 GATGCCAGGAGGCACAGCGCCCTCCCCCTCAGACCTTGGGCTCCACAGATTAATCAGCGAAATCCCCA
 GGGCAAGCCAGCTGGGGCTCAGCTAGGCCAGCCCCAGCCACGCCACCTCCGCAAGGAGGCCCTCGCC
 AAGCTCAGTCTCCTCAGCCCCAGAGATCTGGAAGCCCCTCCCAACAGAGGCTCTCCCCACAAGGCCAGCA
 GCCCTGAGCCCCCAGTCCGGATCTCCACAGCAGCAAAGGTCACCAGGCTCTCCGAGCTATCCCGGCA
 TCCAGTGGCAGCTCCCCAAACCAGGCCCTCAAGCCAGGTGCCACCCTCGCCTCACAGCCCCGGCCCCCTG
 TGCAGGGCCGTAGTACCTCCCAGCAGGGTGAAGAGTCCAAGAAGCCAGCACCACCCCATCCGCATCTCAA
 CAAATCTCAGTCCCTGACTAACAGCCTCAGCACATCCGACACCTCCAGCGTGGGACCCCAAGTGAAGAC
 GAGGCCAAGGCTGAAACCATCCGCAACCTGAGGAAGTCTTTGCCAGCCTGTTCTCTGAC

ACGGTACGGCGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC219395 representing NM_003490
 Red=Cloning site Green=Tags(s)

MNFLRRRLSDSSFMANLPNGYMTDLQRPDSSTSSPASPAMERRHPQLAASFSSPGSSLFSSLSAMKQA
 PQATSGLMEPPGPSTPIVQRPRILLVIDDAHTDWSKYFHGKKVNGEIEIRVEQAEFSELNLAAYVTGGCM
 VDMQVVRNGTKVVSRSFKPDFILVRQHAYSMALGEDYRSLVIGLQYGGPLAVNSLYSVYFNCSPKPVFWSQ
 LIKIFHSLGPEKFLVEQTFPPNHKPMVTAPHFPVVVKLGHAHAGMGKIKVENQLDFQDITSVVAMAKTY
 ATTEAFIDSKYDIRIQKIGSNYKAYMRTSISGNWKANTGSAMLEQVAMTERYRLWVDSCEMFGGLDICA
 VKAVHSDGRDYIEVMDSSMPLIGEHEVEDRQLMADLVVSKMSQLPMPGGTAPSPLRPWAPQIKSAKSP
 GQAQLGPQLGQPQPRPPPPQGGPRQAQSPQQRSGSPSQRLSPQGGQPLSPQSGSPQQRSPGSPQLSRA
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 EAKAETIRNLRKSFASLFS

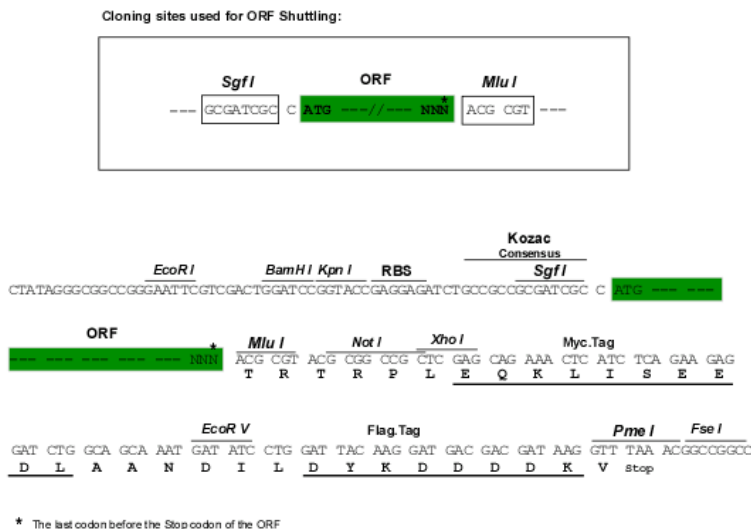
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2648_e10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_003490

ORF Size: 1740 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_003490.4](#)

RefSeq Size: 2918 bp

RefSeq ORF: 1743 bp

Locus ID: 8224

UniProt ID: [O14994](#)

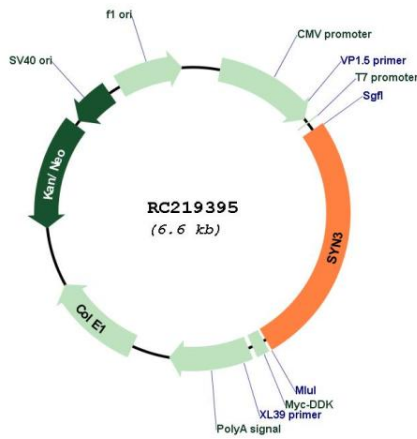
Cytogenetics: 22q12.3

Protein Families: Secreted Protein

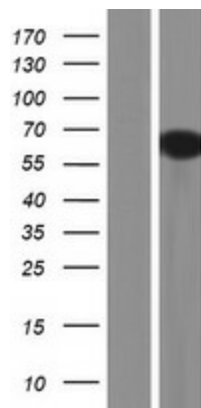
MW: 63.1 kDa

Gene Summary: This gene is a member of the synapsin gene family. Synapsins encode neuronal phosphoproteins which associate with the cytoplasmic surface of synaptic vesicles. Family members are characterized by common protein domains, and they are implicated in synaptogenesis and the modulation of neurotransmitter release, suggesting a potential role in several neuropsychiatric diseases. The protein encoded by this gene shares the synapsin family domain model, with domains A, C, and E exhibiting the highest degree of conservation. The protein contains a unique domain J, located between domains C and E. Based on this gene's localization to 22q12.3, a possible schizophrenia susceptibility locus, and the established neurobiological roles of the synapsins, this family member may represent a candidate gene for schizophrenia. The TIMP3 gene is located within an intron of this gene and is transcribed in the opposite direction. Alternative splicing of this gene results in multiple splice variants that encode different isoforms. [provided by RefSeq, Oct 2008]

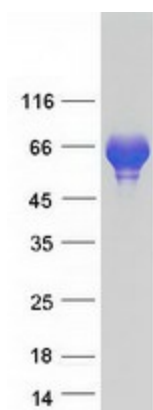
Product images:



Circular map for RC219395



Western blot validation of overexpression lysate (Cat# [LY401178]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219395 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SYN3 protein (Cat# [TP319395]). The protein was produced from HEK293T cells transfected with SYN3 cDNA clone (Cat# RC219395) using MegaTran 2.0 (Cat# [TT210002]).