

Product datasheet for **RC221273**

Synapsin I (SYN1) (NM_006950) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Synapsin I (SYN1) (NM_006950) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Synapsin I
Synonyms:	EPILX; MRX50; SYN1a; SYN1b; SYN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC221273 representing NM_006950
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGAACTACCTGCGGCGCCGCTGTCTCGACAGCAACTTTATGGCCAATCTGCCAAATGGGTACATGACAG
 ACCTGCAGCGTCCGCAGCCGCCCCACCGCCGCCGGTGGCCACAGCCCCGGAGCCACGCCCGTCCCGG
 GACCGCCACTGCCGAGAGGTCTCCGGGGTCCGCCAGCGGCTCTCCGGCCGCCCTAGCCCCGGGTCC
 TCGGGGGCGGTGGCTTCTTCTCGTCGCTGTCCAACGCGGTCAAGCAGACCACGGCGGGCAGCTGCCA
 CCTTCAGCGAGCAGGTGGCGGGGCTCTGGGGGCGCAGGCCGGGGGAGCCGCTCCAGGGTGTCTGT
 GGTTCATCGACGAGCCGCACACCGACTGGGCAAAATACTTCAAAGGGAAAAAGATCCATGGAGAAATTGAC
 ATTAAGTAGAACAGGCCGAATTCTCTGATCTCAACCTTGTGGCCATGCCAATGGTGGATTCTCTGTGG
 ATATGGAAGTTCTTCGGAATGGGTGAAGTCTGTCGGTCTCTGAAGCCGGATTTTGTGCTGATCCGCCA
 GCACGCCCTCAGCATGGCAGCAACGGAGACTACCGCAGTTTGGTCATTGGGCTGCAGTATGCTGGAATC
 CCCAGTGTAACTCCTTGCAATTCTGTCTACAACCTCTGTGACAAGCCCTGGGTGTTTGCCAGATGGTTC
 GACTGCATAAGAACTGGGGACAGAAGAATCCCTCTAATTGATCAGACCTTCTACCCCAATCACAAGA
 AATGCTCAGCAGTACAACGTACCCCGTGGTGTGAAGTGGGGCAGCAGCACTCTGGGATGGGCAAGGTC
 AAGGTTGACAACCAGCATGACTTCCAGGACATCGCAAGTGTCTGGCACTGACCAAGACGTATGCCACTG
 CCGAGCCCTTCATCGATGCCAAATATGACGTGCGTGTCCAGAAGATTGGGCAGAACTACAAGGCCTACAT
 GAGGACGTCAAGTGTGAGGAACTGGAAGACCAATACTGGCTCTGCGATGCTGGAGCAAATTGCCATGTCT
 GACAGATACAAGCTGTGGTGGACAGTGTCTCAGAGATTTTGGGGACTGGACATCTGCCAGTGAAG
 CGTACATGGCAAGGACGAAGGGATCACATCATTGAGTGGTGGTTCCCTCCATGCCGCTCATTGGTGA
 CCACCAGGATGAAGACAACAGCTCATCGTAGAGCTCGTGGTCAACAAGATGGCTCAGGCCCTGCCCGG
 CAGCGACAGCGGGATGCCTCCCTGGCAGGGGCTCCCATGGCCAGACTCCGTCCCAGGGGCCCTGCCCT
 TGGGCCGCGAGACCTCCAGCAGCCCGCAGGGCCCCCGGCTCAGCAGCGACCCCCACCACAGGGCGGCC
 TCCACAGCCGGTCCAGGCCCCAGCGCCAGGGACCCCATTCAGCAGCGCCCGCCCCCGCAGGGCCAG
 CAGCACCTTTCAGGCCTTGACCCCGCTGGCAGCCCTGCCCCAGCGCTTCCAAGTCCACCTCAG
 CGCCCCAGCAGCCCGCTCCAGGCCGCGCCGACCCAGGGTCAAGGCCGCAATCCCGGCCAGTGGC
 GGGAGGCCCGGGGCGCCTCCAGCAGCCCGCCCGCCCTCTCCGTCTCCCAGCGCCAGGCGGGCCCC
 CCACAGGCTACCGTCCAGACATCCGTCTCTGGCCGGCTCCGCCAAAGGCTCTGGGGCCCCACCGGGC
 GGCAGCAGCGCCAGGGCCCGCCAGAAACCCAGGCCAGCCGGCCCCACAGCCAGGCCAGCCAGGC
 GGGTCCCGTGCCCGCACTGGGCCACCCACCACGAGCAGCCTCGGCCAGCGGGCCCGGGCCCCGCTGGA
 CGTCCCAAACACAGCTGGCCAGAAACCCAGCCAGGACGTGCCGCCACCCGCCACCGCCGCTGCAGGGG
 GACCTCCGCACCCCGCTCAACAAATCCAGTCTCTGACCAATGCCTTCAACCTTCCAGAGCCAGCCCC
 GCCCAGGCCAGCCTTAGCCAGGACGAGGTGAAAGCTGAGACCATCCGCAGCCTGAGGAAGTCTTTCGCC
 AGCCTCTCTCCGAC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221273 representing NM_006950
 Red=Cloning site Green=Tags(s)

MNYLRRRLSDSNFMANLPNGYMTDLQRPQPPPPPPGAHSPGATPGPGTATAERSSGVAPAASPAAPSPGS
 SGGGGFFSSLNAVKQTAAAAATFSEQVGGSGGAGRGGAA SRVLLVIDEPHTDWAKYFKGKKIHGEID
 IKVEQAEFSDLNLVAHANGGFSDMEVLRNGVKVVRSLKPDFVLIRQHAF SMARNGDYRSLVIGLQYAGI
 PSVNSLHSVYNFCDKPWVFAQMVRLLHKKLGTEEFPLIDQTFYPNHKEMLSSTTYPVVVKMGHAHSGMGKV
 KVDNQHDQDIASVVALTKTYATAEPFIDAKYDVRVQKIGQNYKAYMRTSVSGNWK TNGSAMLEQIAMS
 DRYKLWWDTCSEIFGGLDICAVEALHGKDGRDHIIEVVGSSMPLIGDHQDEKQLIVELVVKMAQALPR
 QRQRDASPRGSHGQTPSPGALPLGRQTSQQPAGPPAQQRPPQGGPPQPGPGPQRQGPPLQQRPPPPQGQ
 QHLSGLGPPAGSPLPQRLPSPASAPQPPASQAAPPTQGGQRQSRPVAGGPGAPPAARPPASPSQRQAGP
 PQATRQTSVSGPAPPKASGAPPGQQRQGPQKPPGPAGPTRQASQAGVPRTGPPTTQQPRPSGPGPAG
 RPKPQLAQKPSQDVPPPATAAGGPPHPQLNKSQSLTNAFNLPEPAPRPSLSQDEVKAETIRSLRKSFA
 SLFSD

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3815_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_006950

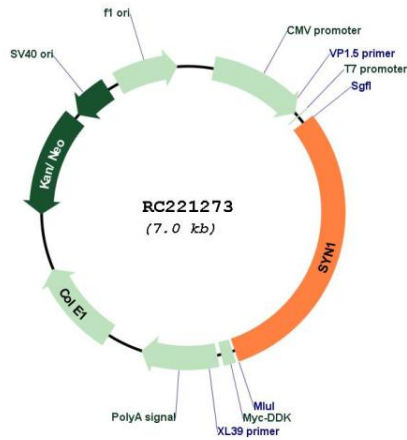
ORF Size: 2115 bp

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](#)

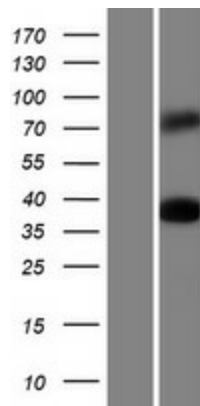
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_006950.3
RefSeq Size:	2248 bp
RefSeq ORF:	2118 bp
Locus ID:	6853
UniProt ID:	P17600
Cytogenetics:	Xp11.3-p11.23
Domains:	Synapsin
MW:	73.9 kDa
Gene Summary:	<p>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. This member of the synapsin family plays a role in regulation of axonogenesis and synaptogenesis. The protein encoded serves as a substrate for several different protein kinases and phosphorylation may function in the regulation of this protein in the nerve terminal. Mutations in this gene may be associated with X-linked disorders with primary neuronal degeneration such as Rett syndrome. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]</p>

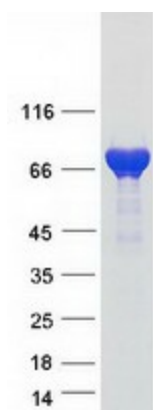
Product images:



Circular map for RC221273



Western blot validation of overexpression lysate (Cat# [LY416298]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221273 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SYN1 protein (Cat# [TP321273]). The protein was produced from HEK293T cells transfected with SYN1 cDNA clone (Cat# RC221273) using MegaTran 2.0 (Cat# [TT210002]).