

## Product datasheet for **RC217800**

### Synapsin I (SYN1) (NM\_133499) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Synapsin I (SYN1) (NM_133499) 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)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC217800 representing NM\_133499  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAACTACCTGCGGCGCCGCTGTCTCGACAGCAACTTTATGGCCAATCTGCCAAATGGGTACATGACAG  
ACCTGCAGCGTCCGCAGCCGCCCCACCGCCGCCCGGTGCCACAGCCCCGGAGCCACGCCCGTCCCGG  
GACCGCCACTGCCGAGAGGTCTCCGGGGTCCGCCAGCGGCTCTCCGGCCGCCCTAGCCCCGGGTCC  
TCGGGGGGCGGTGGCTTCTTCTCGTCGCTGTCCAACGCGGTCAAGCAGACCACGGCGGGCAGCTGCCA  
CCTTCAGCGAGCAGGTGGGCGGGGCTCTGGGGGCGCAGGCCGGGGGAGCCGCTCCAGGGTGTCTGT  
GGTCATCGACGAGCCGCACACCGACTGGGCAAAATACTTCAAAGGGAAAAAGATCCATGGAGAAATTGAC  
ATTAAGTAGAACAGGCCGAATTCTCTGATCTCAACCTTGTGGCCATGCCAATGGTGGATTCTCTGTGG  
ATATGGAAGTTCTTCGGAATGGGGTGAAGTCTGTCGGTCTCTGAAGCCGGATTTTGTGCTGATCCGCCA  
GCACGCCCTCAGCATGGCAGCAACGGAGACTACCGCAGTTTGGTCATTGGGCTGCAGTATGCTGGAATC  
CCAGTGTAACTCCTTGCAATTCTGTCTACAACCTCTGTGACAAGCCCTGGGTGTTTGCCAGATGGTTC  
GACTGCATAAGAACTGGGGACAGAAGAATTCCTCTAATTGATCAGACCTTCTACCCCAATCACAAGA  
AATGCTCAGCAGTACAACGTACCCCGTGGTGTGAAGTGGGGCAGCACAACCTCTGGGATGGGCAAGGTC  
AAGGTTGACAACCAGCATGACTTCCAGGACATCGCAAGTGTCTGGCACTGACCAAGACGTATGCCACTG  
CCGAGCCCTTTCATCGATGCCAAATATGACGTGCGTGTCCAGAAGATTGGGCAGAACTACAAGGCCTACAT  
GAGGACGTCAGTGTCCAGGAACTGGAAGACCAATACTGGCTCTGCGATGCTGGAGCAAATTGCCATGTCT  
GACAGATAACAAGTGTGGGTGGACAGTGTCTCAGAGATTTTGGGGACTGGACATCTGCGCAGTGAAG  
CGCTACATGGCAAGGACGGAAGGATCACATCATTGAGTGGTGGGTTCTCCATGCCGCTCATTGGTGA  
CCACCAGGATGAAGACAACAGCTCATCGTAGAGCTCGTGGTCAACAAGATGGCTCAGGCCCTGCCCCGG  
CAGCGACAGCGGGATGCCTCCCTGGCAGGGGCTCCCATGGCCAGACTCCGTCCCAGGGGCCCTGCCCT  
TGGGCCGCGAGACCTCCAGCAGCCCGCAGGGCCCCCGGCTCAGCAGCGACCCCCACCACAGGGCGGCC  
TCCACAGCCGGTCCAGGCCCCAGCGCCAGGGACCCCCATTGCAGCAGCGCCCGCCCCCGCAGGGCCAG  
CAGCACCTTTCAGGCCTTGACCCCGAGTGGCAGCCCCCTGCCAGCGCTTCCAAGTCCACCTCAG  
CGCCCCAGCAGCCCGCTCCAGGCCGCGCCGCGACCCAGGGTCAAGGCCGCAATCCCGGCCAGTGGC  
GGGAGGCCCGGGGCGCCTCCAGCAGCCCGCCCGCCCTCTCCGTCTCCCAGCGCCAGGCGGGCCCC  
CCACAGGCTACCCGTGAGACATCCGTCTCTGGCCGGCTCCGCCAAGGCCTCTGGGGCCCCACCGGGCG  
GGCAGCAGCGCCAGGGCCCGCCAGAAACCCAGGCCAGCCGGCCCCACAGCCAGGCCAGCCAGGC  
GGGTCCCGTGCCCGCACTGGGCCACCCACCACGAGCAGCCTCGGCCAGCGGGCCCGGGCCCCGCTGGA  
CGTCCCAAACACAGCTGGCCAGAAACCCAGCCAGGACGTGCCGCCACCCGCCACCGCCGCTGCAGGGG  
GACCTCCGCACCCCACTCAAAGCCAGCCCGCCAGGCCAGCCT

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC217800 representing NM\_133499  
 Red=Cloning site Green=Tags(s)

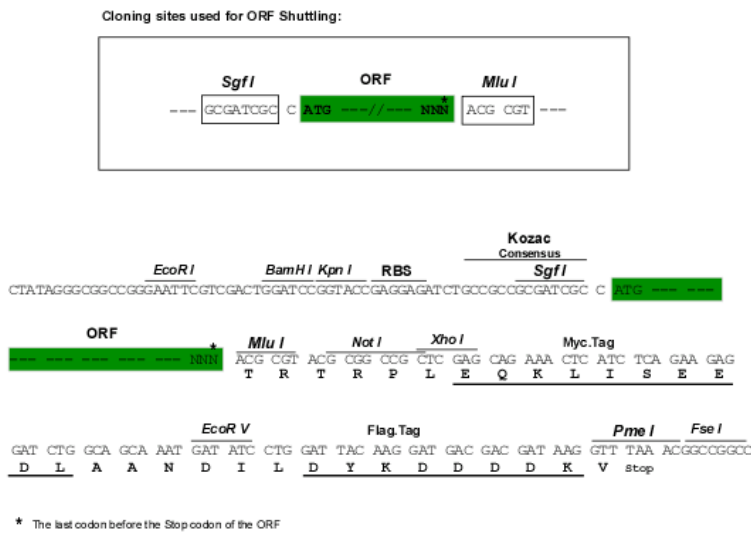
```
MNYLRRLSDSNFMANLPNGYMTDLQRPQPPPPPPGAHSPGATPGPGTATAERSSGVAPAASPAAPSPGS
SGGGGFFSSLNAVKQTAAAAATFSEQVGGGSGGAGRGGAA SRVLLVIDEPHTDWAKYFKGKKIHGEID
IKVEQAEFSDLNLVAHANGGFSDVMEVLRNGVKVVRSLKPDFVLIRQHAF SMARNGDYRSLVIGLQYAGI
PSVNSLHSVYVNFCDKPWFVFAQMVRLHKKLGTEEFPLIDQTFYPNHKEMLSSTTYPVVVKMGHAHSGMGKV
KVDNQHDFQDIASVVALTKTYATAEPFIDAKYDVRVQKIGQNYKAYMRTSVSGNWK TNGSAMLEQIAMS
DRYKLVWDTCEIFGGLDICAVEALHGKDGRDHIIEVVGSSMPLIGDHQDEDKQLIVELVVKMAQALPR
QRQRDASPGRGSHGQTPSPGALPLGRQTSQQPAGPPAQQRPPPPQGPPQPGPGPQRQGPPLQQRPPPPQGQ
QHL SGLGPPAGSPLPQRLPSPTSAPQQPASQAAPPTQGQGRSRPVAGGPGAPPAARPPASPSQRQAGP
PQATRQTSVSGPAPPKASGAPPGQQRQGPQKPPGPAGPTRQASQAGVPVRTGPPTTQQPRPSGPGPAG
RPKPQLAQKPSQDVPPPATAAAGGPPHPQLKASPAQAQP
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8072\\_c01.zip](https://cdn.origene.com/chromatograms/mk8072_c01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_133499

**ORF Size:** 2007 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\\_133499.2](#), [NP\\_598006.1](#)

**RefSeq Size:** 2140 bp

**RefSeq ORF:** 2010 bp

**Locus ID:** 6853

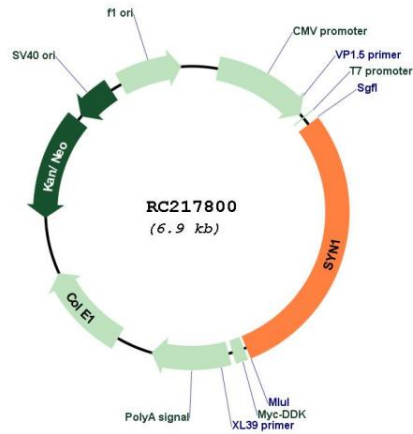
**UniProt ID:** [P17600](#)

**Cytogenetics:** Xp11.3-p11.23

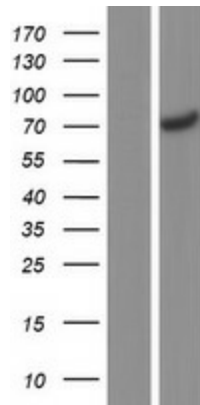
**MW:** 69.9 kDa

**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. 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]

Product images:



Circular map for RC217800



Western blot validation of overexpression lysate (Cat# [LY408828]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217800 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).