

Product datasheet for **RG217800**

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:	TurboGFP
Symbol:	SYN1
Synonyms:	EPILX; MRX50; SYN1a; SYN1b; SYN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG217800 representing NM_133499
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAACACTCGGGCGCCGCTGTCCGACAGCAACTTTATGGCCAATCTGCCAAATGGGTACATGACAG
 ACCTGCAGCGTCCGCAGCCGCCCCACCGCCCGCCGGTGCCACAGCCCCGGAGCCACGCCCGTCCCGG
 GACCGCCACTGCCGAGAGGTCTCCGGGGTCCGCCAGCGGCTCTCCGGCCGCCCTAGCCCCGGGTCC
 TCGGGGGCGGTGGCTTCTTCTCGTCGCTGTCCAACGCGGTCAAGCAGACCACGGCGGGCAGCTGCCA
 CCTTCAGCGAGCAGGTGGCGGGGCTCTGGGGGCGCAGGCCGGGGGAGCCGCTCCAGGGTGTCTGT
 GGTTCATCGACGAGCCGCACACCGACTGGGCAAAATACTTCAAAGGGAAAAAGATCCATGGAGAAATTGAC
 ATTAAGTAGAACAGGCCGAATTCTCTGATCTCAACCTTGTGGCCATGCCAATGGTGGATTCTCTGTGG
 ATATGGAAGTTCTTCGGAATGGGTGAAGTCTGTCGGTCTCTGAAGCCGGATTTTGTGCTGATCCGCCA
 GCACGCCCTCAGCATGGCAGCAACGGAGACTACCGCAGTTTGGTCATTGGGCTGCAGTATGCTGGAATC
 CCCAGTGTAACTCCTTGCAATTCTGTCTACAACCTCTGTGACAAGCCCTGGGTGTTTGCCAGATGGTTC
 GACTGCATAAGAACTGGGGACAGAAGAATCCCTCTAATTGATCAGACCTTCTACCCCAATCACAAGA
 AATGCTCAGCAGTACAACGTACCCCGTGGTGTGAAGTGGGGCAGCACAACCTCTGGGATGGGCAAGGTC
 AAGGTTGACAACCAGCATGACTTCCAGGACATCGCAAGTGTCTGGCAGTACCAAGACGTATGCCACTG
 CCGAGCCCTTCATCGATGCCAAATATGACGTGCGTGTCCAGAAGATTGGGCAGAACTACAAGGCCTACAT
 GAGGACGTCAGTGTCCAGGAACGGAAGACCAATACTGGCTCTGCGATGCTGGAGCAAATTGCCATGTCT
 GACAGATACAAGCTGTGGGTGGACACGTGCTCAGAGATTTTGGGGACTGGACATCTGCGCAGTGAAG
 CGTACATGGCAAGGACGGAAGGATCACATCATTGAGTGGTGGGTTCCCTCCATGCCGCTCATTGGTGA
 CCACCAGGATGAAGACAACAGCTCATCGTAGAGCTCGTGGTCAACAAGATGGCTCAGGCCCTGCCCCGG
 CAGCGACAGCGGGATGCCTCCCTGGCAGGGGCTCCCATGGCCAGACTCCGTCCCAGGGGCCCTGCCCT
 TGGGCCGCGAGACCTCCAGCAGCCCGCAGGGCCCCCGGCTCAGCAGCGACCCCCACCACAGGGCGGCC
 TCCACAGCCGGTCCAGGCCCCAGCGCCAGGGACCCCCATTGCAGCAGCGCCCGCCCCCGCAGGGCCAG
 CAGCACCTTTCAGGCCTTGGACCCCGCTGGCAGCCCCCTGCCCGAGCCTTCCAAGTCCACCTCAG
 CGCCCCAGCAGCCCGCTCCAGGCCCGCCGCGCCAGCCAGGGTCAAGGCCGCAATCCCGGCCAGTGGC
 GGGAGGCCCGGGGCGCCTCCAGCAGCCCGCCCGCCGCTCTCCGTCTCCCAGCGCCAGGCGGGCCCC
 CCACAGGCTACCGTCCAGACATCCGTCTCTGGCCCGGCTCCGCCAAGGCCTCTGGGGCCCCACCGGGC
 GGCAGCAGCGCCAGGGCCCGCCAGAAACCCAGGCCAGCCGGCCCCACAGCCAGGCCAGCCAGGC
 GGGTCCCGTGCCCGCACTGGGCCACCCACCACGAGCAGCCTCGGCCAGCGGGCCCGGGCCCCGCTGGA
 CGTCCCAAACACAGCTGGCCAGAAACCCAGCCAGGACGTGCCGCCACCCGCCACCGCCGCTGCAGGGG
 GACCTCCGCACCCCGAGCTCAAAGCCAGCCCGCCAGGCCAGCCCT

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217800 representing NM_133499
 Red=Cloning site Green=Tags(s)

MNYLRRRLSDSNFMANLPNGYMTDLQRPQPPPPPPGAHSPGATPGPGTATAERSSGVAPAASPAAPSPGS
 SGGGGFFSSLNAVKQTAAAAATFSEQVGGSSGAGRGGAA SRVLLVIDEPHTDWAKYFKGKKIHGEID
 IKVEQAEFSDLNLVAHANGGFSDMEVLRNGVKVVRSLKPDFVLIRQHAF SMARNGDYRSLVIGLQYAGI
 PSVNSLHSVYNFCDKPWFVAQMVRLHKKLGTEEFPLIDQTFYPNHKEMLSSTTYPVVVKMGHAHSGMGKV
 KVDNQHDFQDIASVVALTKTYATAEPFIDAKYDVRVQKIGQNYKAYMRTSVSGNWK TNTGSAMLEQIAMS
 DRYKLWVDTCEIFGGLDICAVALHGKDGRDHIIEVVGSSMPLIGDHQDEDKQLIVELVYNKMAQALPR
 QRQRDASPRGSHGQTPSPGALPLGRQTSQQPAGPPAQQRPPQGGPPQPGPGPQRQGPPLQQRPPPPQGQ
 QHL SGLGPPAGSPLPQRLPSPTSAPQQPASQAAPPTQGGQRQSRPVAGGPGAPPAARPPASPSPQRQAGP
 PQATRQTSVSGPAPPKASGAPPGQQRQGPQKPPGPAGPTRQASQAGVPVPTGPPTTQQPRPSGPGPAG
 RPKPQLAQKPSQDVPPPATAAAGGPPHPQLKASPAQAQP

TRTRPLE - GFP Tag - V

Restriction Sites:

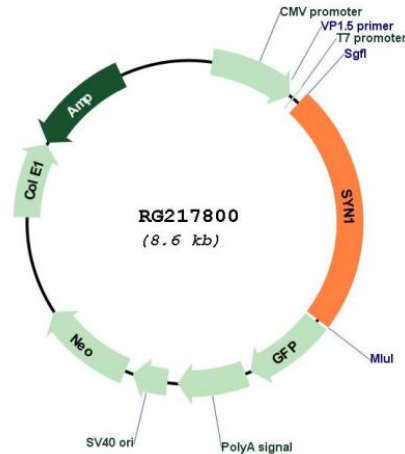
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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

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]