

Product datasheet for RC208972

Synaptophysin (SYP) (NM_003179) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Synaptophysin (SYP) (NM_003179) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Synaptophysin |
| Synonyms: | MRX96; MRXSYP |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC208972 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTGCTGCTGGCGGACATGGACGTGGTGAATCAGCTGGTGGCTGGGGTCAGTTCGGGTGGTCAAGG
AGCCCCTCGCCTTTGTGAAGGTGCTGCAATGGTCTTCGCCATCTTCGCCTTTGCCACATGCGGCAGCTA
CAGTGGGGAGCTCCAGCTGAGCGTGGATTGTGCCAACAAGACCGAGAGTGACCTCAGCATCGAGGTCGAG
TTCGAGTACCCCTTCAGGCTGCACCAAGTGTACTTTGATGCACCCACCTGCCGAGGGGGCACCACCAAGG
TCTTCTTAGTTGGGGACTACTCCTCGTCAGCCGAATTCCTTGTACCCGTGGCCGTGTTTGCCTTCTCTA
CTCCATGGGGGCTCTGGCCACCTACATCTTCTCGAGAACAAGTACCGAGAGAATAACAAAGGGCCCATG
CTGGACTTTCTGGCCACGGCTGTGTTCCCTTCATGTGGCTAGTTAGCTCATCGGCATGGGCCAAGGGGC
TGTCAGATGTGAAGATGGCCACAGACCCAGAGAACATTATCAAGGAGATGCCTGTCTGCCCCAGACAGG
GAACACATGCAAGGAGCTGAGAGACCTTGTGACCTCGGGACTCAACACCTCGGTGGTGTTCGGCTTCTG
AACCTGGTGCTCTGGGTCGGCAACCTGTGGTTCGTGTTAAGGAGACAGGCTGGGCCGCCCGTTCTCTGC
GCGCGCTCCCGGCCCGCCGAGAAACAACCGGCACCCGGGACGCCTACGGCGATGCAGGCTACGGGCA
GGGCCCGCGGGTACGGGCCAGGATTCTACGGGCCTCAGGGCGCTACCAGCCTGACTATGGTCAA
CCAGCCCGCAGCGGTGGCAGTGGCTACGGGCCTCAGGGCGACTATGGGCAGCAAGGCTACGGCCCGCAGG
GTGCACCCACCTCCTTCCAATCAGATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208972 protein sequence
Red=Cloning site Green=Tags(s)

MLLLADMDVVNQLVAGGQFRVVKPELGFVKVLQWVFAIFAFATCGSYSGELQLSVDKANKTESDLSIEVE
 FEYPPFRLHQVYFDAPTCRGGTTKVFLVGDYSSSAEFFVTAVFAFLYSMGALATYIFLQNKYRENNKGPM
 LDFLATAVFAFMWLVSSSAWAKGLSDVKMATDPENIIKEMPVCRQTGNTCKELRDLVTSGLNTSVVFGFL
 NLVWLWGNLWFVFKETGWAAPFLRAPPGAPEKQPAPGDAYGDAGYGQGGYGPQDSYGPQGGYQPDYGO
 PAGSGSGYGPQGDYGGYGPQGAPTSFSNQM

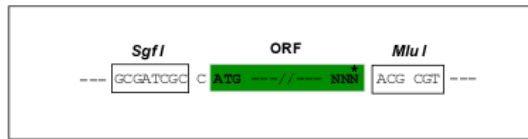
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6125_h04.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_003179

ORF Size: 939 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003179.3](#)

RefSeq Size: 2449 bp

RefSeq ORF: 942 bp

Locus ID: 6855

UniProt ID: [P08247](#)

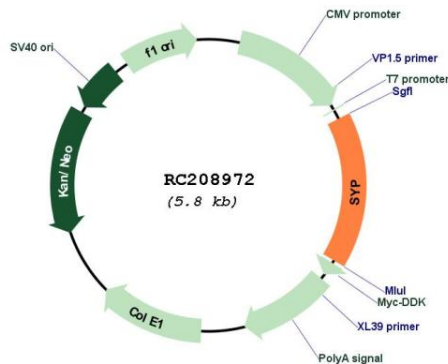
Cytogenetics: Xp11.23

Protein Families: Secreted Protein, Transmembrane

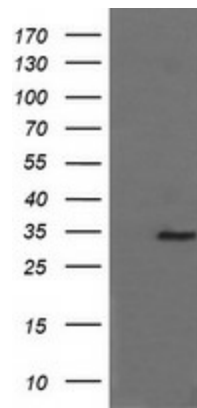
MW: 33.9 kDa

Gene Summary: This gene encodes an integral membrane protein of small synaptic vesicles in brain and endocrine cells. The protein also binds cholesterol and is thought to direct targeting of vesicle-associated membrane protein 2 (synaptobrevin) to intracellular compartments. Mutations in this gene are associated with an X-linked form of cognitive disability. [provided by RefSeq, Jul 2017]

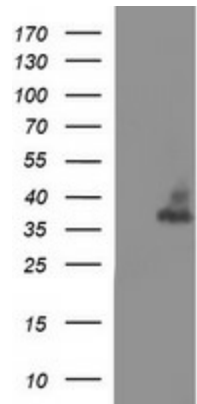
Product images:



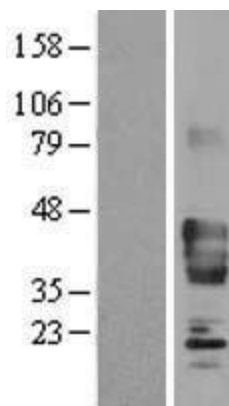
Circular map for RC208972



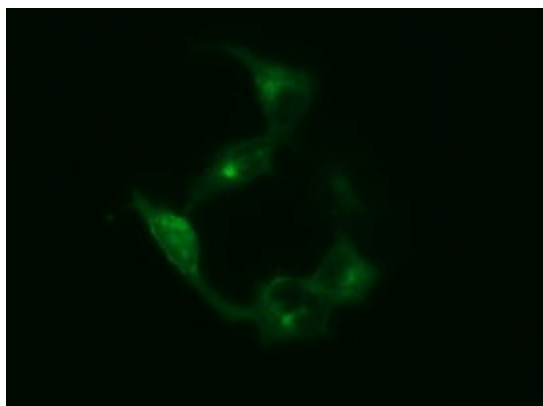
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SYP (Cat# RC208972, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SYP (Cat# [TA506067]). Positive lysates [LY401102] (100ug) and [LC401102] (20ug) can be purchased separately from OriGene.



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY SYP (RC208972, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SYP ([TA506499]). Positive lysates [LY401102] (100ug) and [LC401102] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401102]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208972 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Anti-SYP mouse monoclonal antibody ([TA506499]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY SYP (RC208972).