

## Product datasheet for SC317636

### SYT8 (NM\_138567) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SYT8 (NM_138567) Human Untagged Clone
Tag:	Tag Free
Symbol:	SYT8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC317636 representing NM_138567. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC  
 ATGCTCCACCTGCATGGCTGGCAAACCATGCAGGGTAGAAAGATGGGGCACCACCACTCTCTCCAGT  
 GCGCCGGCCCCAGCTGGCACCACAGCTATACCTGGGCTTATTCCAGACCTTGTGCGCCGGGACCCCTTG  
 CCGCTGGGCTCTCATTGCCGGCGCCCTTGCCGCGGGCGTCTCTCGTCTCTGCCTCTCTGTGCT  
 GCCTGTGCTGCTGCCGCGCCACAGGAAGAAGCCAGGGACAAGGAGTCCGTGGGTCTGGGCAGTGCC  
 CGCGGCACCACCACCACCTGGTGCAACCTGATGTGGATGGCTGGAGTCCAGCCCGGGGATGCT  
 CAGCAATGGGGCGCCTGCAGCTCTCCCTGGAGTTCGACTTTGGAAGCCAGGAGATCAGGGTGGCCTG  
 AGGCAGGCAGCCGACCTGAGGCCTGGGGGACCGTGGACCCCTATGCCCGGGTCAGCGTCTCCACCCAG  
 GCCGGACACAGACATGAGACAAAGTGACCGAGGCACGCTCTGCCCGTGTGACGAGACCTGTGTC  
 TTCCACATCCCGCAGGCGGAGCTGCCAGGGGCCACCTGCAGGTGCAGCTTTTCAACTTCAAGCGCTTC  
 TCGGGGCATGAGCCCTGGGTGAGCTCCGTCTGCCACTGGGCACCGTGGATCTGCAGCATGTTCTGGAG  
 CACTGGTACCTGCTGGGCCCGCGGCTGCCACTCAGCCCGAGCAGGTGGGGAGCTGTGCTTCTCTCTC  
 CGGTACGTGCCAGCTCAGGCCGGCTGACCGTGGTGGTGTGGAGGCTCAGGGCTCGTCCAGGACTT  
 GCAGAGCCCTACGTGAAGGTCCAGCTCATGCTGAACCAGAGGAAGTGAAGAAGAGAAAGACAGCCACC  
 AAAAAGGGCACGCGGCCCTACTTCAATGAGGCCTTACCTTCTGTTGCCCTTCAGCCAGGTCCAG  
 AATGTGGACCTGGTGTGCTGTCTGGGACCGCAGCCTGCCGCTCCGAAGTGAAGCCGTAGGCAAGGTG  
 CACCTGGGTGCCCGGGCTCGGGGCAGCCCTGCAGCACTGGGCAGACATGCTGGCCACGCCCGCGG  
 CCCATTGCCAGCGGCACCCCTGCGGCCAGCCAGGGAGGTGGACCGCATGCTGGCCCTGCAGCCCCG  
 CTTGCGCTGCGCTGCCCTTGCCCCACTCTGA  
 ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGCGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_138567


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<b>Insert Size:</b>	1206 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u>NM_138567.4</u>
<b>RefSeq Size:</b>	1558 bp
<b>RefSeq ORF:</b>	1206 bp
<b>Locus ID:</b>	90019
<b>UniProt ID:</b>	<u>Q8NBV8</u>
<b>Cytogenetics:</b>	11p15.5
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	44.2 kDa

**Gene Summary:**

This gene encodes a member of the synaptotagmin protein family. Synaptotagmins are membrane proteins that are important in neurotransmission and hormone secretion, both of which involve regulated exocytosis. Expression of the encoded protein in human pancreatic islets has been connected to activity of the promoter for the insulin gene, on the same chromosome several hundred kilobases away (PMID: 21336277 and 22928559). This association would link response to glucose to insulin secretion. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2014]

**Transcript Variant:** This variant (2) uses an alternate in-frame splice site, and an alternate upstream translation start, compared to variant 1. The encoded protein (isoform 2) is shorter and has a distinct N-terminus, compared to isoform 1.

**CCDS Note:** The coding region has been updated to represent an alternative 3' splice pattern, resulting in a longer and distinct C-terminus that is better supported by available transcript and homology data. The update adds two C2 domains (Ca<sup>2+</sup>-dependent membrane-targeting modules), which are hallmarks of synaptotagmin proteins.