

## Product datasheet for **SC320292**

### Spermine synthase (SMS) (NM\_004595) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Spermine synthase (SMS) (NM_004595) Human Untagged Clone
Tag:	Tag Free
Symbol:	Spermine synthase
Synonyms:	MRSR; SPMSY; SpS; SRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004595.2  
 CAGCCTGACACGCCGCGCGGCCCCAGTCTCCCGCGGCTGCTCCCCAGGCATGGCACA  
 GGGCCTCGCCTACTATGGCAGCAGCACGGCACAGCAGCTCGACTTCATGCTCGGCGCC  
 AAAGCTGATGGTGAACATTCTAAAAGGCTCCAGTCCATTTCCAGGAGCAGGGGATG  
 GCGGAGTCGGTGACACCTGGCAGGACCATGGCTATTTAGCAACCTACACAAACAAGAAC  
 GGCAGCTTTGCCAATTTGAGAATTTACCCACATGGATTGGTGTGCTGGACCTTCAGAGT  
 TATGATGGTGAATGCGCAAGGCAAAGAAGAGATCGACAGTATTTTGAACAAAGTAGAGGAA  
 AGAATGAAAGAATTGAGTCAGGACAGTACTGGGCGGGTGAACGATTACCACCCATAGTG  
 CGAGGAGGAGCCATCGACAGATACTGGCCACCGCCGACGGGCGCCTGGTTGAATATGAC  
 ATAGATGAAGTGGTATATGACGAAGATTACCTTATCAAATATAAAAATTCTACACTCG  
 AAGCAGTTTGAAATATTCTCATCCTTAGTGGGGATGTTAATTTGGCAGAGAGTGATTTG  
 GCATATACCCGGGCCATCATGGCAGTGGCAAAGAAGATTACACTGGCAAAGATGTACTC  
 ATTCTGGGAGGTGGAGACGGAGGCATATTGTGTAAATAGTCAAATAAAACCAAAGATG  
 GTCACTATGGTAGAGATTGACCAAATGGTATTGATGGGTGAAGAAATACATGCGAAAA  
 ACGTGTGGCGATGCTTAGACAATCTTAAAGGAGACTGCTATCAGTTCTAATAGAAGAC  
 TGATCCCGGTAAGAGGTACGCCAAAGAAGGAGAGAATTTGATTATGTGATTAAT  
 GATTTGACAGCTGTTCCAATCTCCACGTCTCCAGAAGAAGATTCCACATGGGAGTTTCTC  
 AGACTGATTTTGACCTCTCAATGAAAGTGTGAAACAGGATGGGAAATATTTTACACAG  
 GGGAACTGTGCAATCTGACAGAAGCACTGTGCTCTATGAAGAACAGCTGGGGCGCCTG  
 TATTGCTGTGGAAATTTCAAAGGAGATCGTCTGTGTCCTTCACTTGAATTTGTTGG  
 GTATTTTACACTGTTTGAAGAAAGCTAAACCTGAAGATCAGTAGCCCTAATCACATG  
 TGCTGCAAATAGCCTTCTGACCTCCATATGCTGTACATGACATCAAATGAGTCAGGCA  
 AATGAAAGTATATATTTGATGAGCTTAGGGTGTGTTTTTTTTTGAAGTCAGCTGA  
 AGGATGGTTAGACAGCACAGCAAGACTGCTAAATGCACTGACCCCCCAATTAGAAATG  
 GATTTTTGTTCTTTTTATTTCTCTGTGGGCTTTTGTGTTTTGTTTTGTTTGGTAGATC  
 TTCAAATTTGGATATTTGGAGGAGTGAACATCGTTGTTTTGCTGGAGGGAAGATCTTGATG  
 GTGTTTCTTTCCCAAAAATTGACTTAGATATTAATAATTTGGTGCTTATAAGAGAGAGTT  
 AAAAAAAAAATAGGATTGCTTCAATTAATAATTAACAAAAGAGACAAAAAAAAAAAAAAAAA  
 AAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_004595

**OTI Disclaimer:** 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).

**OTI Annotation:** 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.

**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).

<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>	<a href="#">NM_004595.2</a> , <a href="#">NP_004586.2</a>
<b>RefSeq Size:</b>	1717 bp
<b>RefSeq ORF:</b>	1101 bp
<b>Locus ID:</b>	6611
<b>UniProt ID:</b>	<a href="#">P52788</a>
<b>Cytogenetics:</b>	Xp22.11
<b>Domains:</b>	Spermine_synth
<b>Protein Pathways:</b>	Arginine and proline metabolism, beta-Alanine metabolism, Cysteine and methionine metabolism, Glutathione metabolism, Metabolic pathways
<b>Gene Summary:</b>	<p>This gene encodes a protein belonging to the spermidine/spermin synthase family and catalyzes the production of spermine from spermidine. Pseudogenes of this gene are located on chromosomes 1, 5, 6 and X. Mutations in this gene cause an X-linked intellectual disability called Snyder-Robinson Syndrome (SRS). Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2017]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer protein (isoform 1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>