

## Product datasheet for RC233729

### Spermine synthase (SMS) (NM\_001258423) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Spermine synthase (SMS) (NM_001258423) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMS
Synonyms:	MRSR; SPMSY; SpS; SRS
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC233729 representing NM_001258423 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCAGCAGCACGGCACAGCAGCTCGACTTCATGCTCGGCGCCAAAGCTGATGGTGAGACCATTCTAA  
AAGGCCTCCAGTCCATTTCCAGGAGCAGGGGATGGCGGAGTCGGTGCACACCTGGCAGGACCATGGCTA  
TTAGCAACCTACACAAACAAGAACGGCAGATTACCACCCATAGTGCAGGAGGAGCCATCGACAGATAC  
TGGCCACCGCCGACGGGCGCCTGGTTGAATATGACATAGATGAAGTGGTATATGACGAAGATTCACCTT  
ATCAAAATATAAAAATTCTACACTCGAAGCAGTTTGAAAATATTCTCATCCTTAGTGGGGATGTTAATTT  
GGCAGAGAGTGATTTGGCATATACCCGGGCCATCATGGGCAGTGGCAAAGAAGATTACACTGGCAAAGAT  
GTACTCATTCTGGGAGGTGGAGACGGAGGCATATTGTGTGAAATAGTCAAACCTAAAACAAAGATGGTCA  
CTATGGTAGAGATTGACCAAATGGTGATTGATGGGTGTAAGAAATACATGCGAAAACGTGTGGCGATGT  
CTTAGACAATCTTAAAGGAGACTGCTATCAGGTTCTAATAGAAGACTGTATCCCGGTACTGAAGAGGTAC  
GCCAAAGAAGGGAGAGAATTTGATTATGTGATTAATGATTTGACAGCTGTTCCAATCTCCACGTCTCCAG  
AAGAAGATTCACATGGGAGTTTCTCAGACTGATTCTTGACCTCTCAATGAAAGTGTGAAACAGGATGG  
GAAATATTTTACACAGGGGAACGTGTCAATCTGACAGAAGCACTGTCGCTCTATGAAGAACAGCTGGGG  
CGCCTGTATTGTCTGTGGAATTTTCAAAGGAGATCGTCTGTGTCCCTTCATACTTGAATTGTGGGTAT  
TTTACTGTTTGAAGAAGCTAAACCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC233729 representing NM\_001258423  
 Red=Cloning site Green=Tags(s)

MAAARHSTLDFMLGAKADGETILKGLQSFQEQGMAESVHTWQDHGYLATYTNKNGRLPPIVRGGAIIDRY  
 WPTADGRLVEYDIDEVYDEDSFYQNIKILHSKQFGNIIILSGDVNLAESDLAYTRAIMSGSKEDYTGKD  
 VLILGGDGGILCEIVKLPKMTMVEIDQMVIDGCKKYMRKTCGDVLDNLKGDCYQVLIEDCIPVLKRY  
 AKEGREFDYVINDLTAVPITSTSPPEEDSTWEFLRLILDLSMKVLKQDGKYFTQGNVCNLTALSLYEEQLG  
 RLYCPVEFSKEIVCVPSYLELWVFYTVWKKAKP

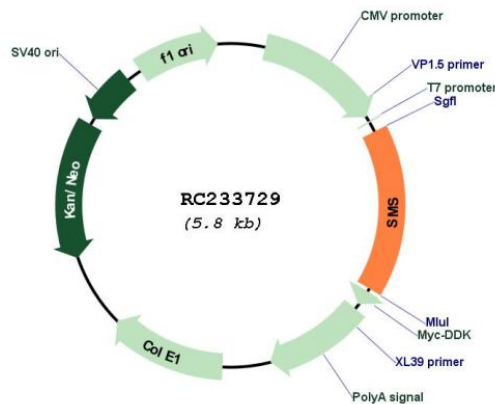
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001258423

ORF Size: 939 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001258423.1</a> , <a href="#">NP_001245352.1</a>
<b>RefSeq Size:</b>	1680 bp
<b>RefSeq ORF:</b>	942 bp
<b>Locus ID:</b>	6611
<b>UniProt ID:</b>	<a href="#">P52788</a>
<b>Cytogenetics:</b>	Xp22.11
<b>Protein Pathways:</b>	Arginine and proline metabolism, beta-Alanine metabolism, Cysteine and methionine metabolism, Glutathione metabolism, Metabolic pathways
<b>MW:</b>	35.7 kDa
<b>Gene Summary:</b>	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]