

## Product datasheet for MC225864

### Snca (NM\_009221) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Snca (NM_009221) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Snca
Synonyms:	alpha-Syn; alphaSYN; NACP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC225864 representing NM_009221 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGATGTGTTTCATGAAAGGACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAGC  
 AGGGTGTGGCAGAGGCAGCTGGAAGACAAAAGAGGGAGTCTCTATGTAGGTTCCAAACTAAGGAAGG  
 AGTGGTTCATGGAGTGACAACAGTGGCTGAGAAGACCAAGCAAGTGACAAATGTTGGAGGAGCAGTG  
 GTGACTGGTGTGACAGCAGTCGCTCAGAAGACAGTGGAGGGAGCTGGGAATATAGCTGCTGCCACTGGCT  
 TTGTCAAGAAGGACCAGATGGGCAAGGGTGAAGAGGGGTACCCACAGGAAGGAATCCTGGAAGACATGCC  
 TGTGGATCCTGGCAGTGAGGCTTATGAAATGCCTTCAGAGGAAGGCTACCAAGACTATGAGCCTGAAGCC  
**TAA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-MluI
ACCN:	NM_009221
Insert Size:	423 bp

**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).


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<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_009221.2, NP_033247.1</u>
<b>RefSeq Size:</b>	1208 bp
<b>RefSeq ORF:</b>	423 bp
<b>Locus ID:</b>	20617
<b>UniProt ID:</b>	<u>O55042</u>
<b>Cytogenetics:</b>	6 29.15 cM
<b>Gene Summary:</b>	<p>Neuronal protein that plays several roles in synaptic activity such as regulation of synaptic vesicle trafficking and subsequent neurotransmitter release. Participates as a monomer in synaptic vesicle exocytosis by enhancing vesicle priming, fusion and dilation of exocytotic fusion pores. Mechanistically, acts by increasing local Ca(2+) release from microdomains which is essential for the enhancement of ATP-induced exocytosis. Acts also as a molecular chaperone in its multimeric membrane-bound state, assisting in the folding of synaptic fusion components called SNAREs (Soluble NSF Attachment Protein REceptors) at presynaptic plasma membrane in conjunction with cysteine string protein-alpha/DNAJC5 (PubMed:20798282, PubMed:25246573). This chaperone activity is important to sustain normal SNARE-complex assembly during aging. Plays also a role in the regulation of the dopamine neurotransmission by associating with the dopamine transporter (DAT1) and thereby modulating its activity (By similarity).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same protein.</p>