

## Product datasheet for **MR228075**

### **Snca (NM\_009221) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Snca (NM\_009221) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Snca  
**Synonyms:** alpha-Syn; alphaSYN; NACP  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR228075 representing NM\_009221  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

**ATGGATGTGTTTCATGAAAGGACTTTCAAAGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAGC**  
**AGGGTGTGGCAGAGGCAGCTGAAAGACAAAAGAGGGAGTCCTCTATGTAGTTCCAAAACCTAAGGAAGG**  
**AGTGGTTCATGGAGTGACAACAGTGGCTGAGAAGACCAAAGAGCAAGTGACAAATGTTGGAGGAGCAGTG**  
**GTGACTGGTGTGACAGCAGTCGCTCAGAAGACAGTGGAGGGAGCTGGGAATATAGCTGCTGCCACTGGCT**  
**TTGTCAAGAAGGACCAGATGGGCAAGGGTGAGGAGGGGTACCCACAGGAAGGAATCCTGGAAGACATGCC**  
**TGTGGATCCTGGCAGTGAGGCTTATGAAATGCCTTCAGAGGAAGGCTACCAAGACTATGAGCCTGAAGCC**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228075 representing NM\_009221  
**Red=Cloning site Green=Tags(s)**  
  
MDVFMKGLSKAKEGVVAAAEEKTKQGVAAEAGKTKQGVLYVGSKTKQGVVHGVTTVAEKTKEQVTNVGGAV  
VTGVTAVAQKTVGAGNIAAATGFVKKDQMGKGEEGYPQEGILEDMPVDPGSEAYEMPSEEGYQDYEP

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

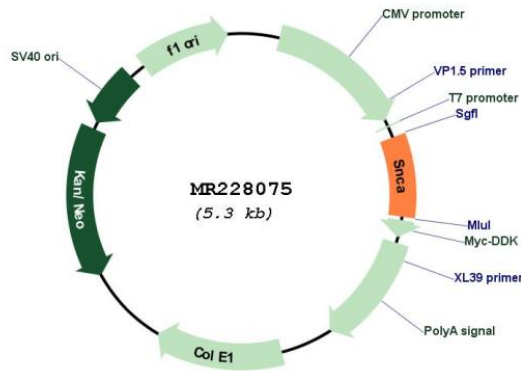


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**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_009221

**ORF Size:** 420 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](#)

<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_009221.2</a> , <a href="#">NP_033247.1</a>
<b>RefSeq Size:</b>	1208 bp
<b>RefSeq ORF:</b>	423 bp
<b>Locus ID:</b>	20617
<b>UniProt ID:</b>	<a href="#">O55042</a>
<b>Cytogenetics:</b>	6 29.15 cM
<b>MW:</b>	14.9 kDa
<b>Gene Summary:</b>	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]