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Product datasheet for MG200876

Snca (NM_009221) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Snca (NM_009221) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Snca
Synonyms:	alpha-Syn; alphaSYN; NACP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG200876 representing NM_009221
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATGTGTTCATGAAAGGACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAGC
AGGGTGTGGCAGAGGCAGCTGGAAAGACAAAAGAGGGAGTCCTCTATGTAGGTTCCAAAACTAAGGAAGG
AGTGGTTCATGGAGTGACAACAGTGGCTGAGAAGACCAAAGAGCAAGTGACAAATGTTGGAGGAGCAGTG
GTGACTGGTGTGACAGCAGTCGCTCAGAAGACAGTGGAGGGAGCTGGGAATATAGCTGCTGCCACTGGCT
TTGTCAAGAAGGACCAGATGGGCAAGGGTGAGGAGGGGTACCCACAGGAAGGAATCCTGGAAGACATGCC
TGTGGATCCTGGCAGTGAGGCTTATGAAATGCCTTCAGAGGAAGGCTACCAAGACTATGAGCCTGAAGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG200876 representing NM_009221
Red=Cloning site Green=Tags(s)

MDVFMKGLSKAKEGVVAAAEKTKQGVAEAAGKTKEGVLYVGSKTKEGVVHGVTTVAEKTKEQVTNVGGAV
VTGVTAVAQKTVEGAGNIAAATGFVKKDQMGKGEEGYPQEGILEDMPVDPGSEAYEMPSEEGYQDYEPEA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

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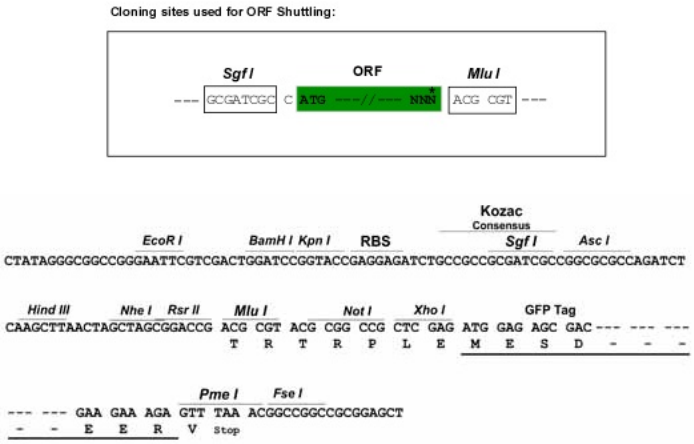
Cloning Scheme:



ACCN: NM_009221

ORF Size: 420 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

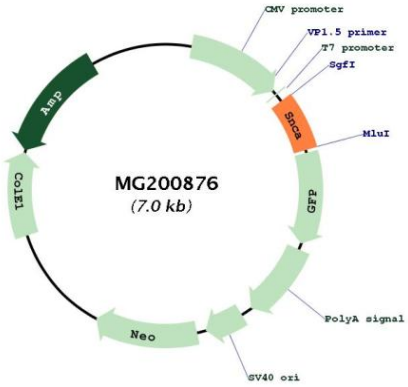
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_009221.2, NP_033247.1
RefSeq Size:	1208 bp
RefSeq ORF:	423 bp
Locus ID:	20617
UniProt ID:	O55042
Cytogenetics:	6 29.15 cM
Gene Summary:	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]

Product images:



Circular map for MG200876