

Product datasheet for **SC128245**

alpha Synuclein (SNCA) (NM_007308) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Synuclein (SNCA) (NM_007308) Human Untagged Clone
Tag:	Tag Free
Symbol:	alpha Synuclein
Synonyms:	NACP; PARK1; PARK4; PD1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_007308 edited
 CTTCTGCCTTTCCACCCTCGTGAGCGGAGAACTGGGAGTGGCCATTTCGACGACAGTGTGG
 TGTAAAGGAATTCATTAGCCATGGATGTATTCATGAAAGGACTTCAAAGGCCAAGGAGG
 GAGTTGTGGCTGCTGCTGAGAAAACCAAACAGGGTGTGGCAGAAGCAGCAGGAAAAGACAA
 AAGAGGGTGTCTCTATGTAGGCTCCAAAACCAAGGAGGGAGTGGTGCATGGTGTGGCAA
 CAGTGGCTGAGAAGACCAAAGAGCAAGTGACAAATGTTGGAGGAGCAGTGGTACGGGTG
 TGACAGCAGTAGCCAGAAGACAGTGGAGGGAGCAGGGAGCATTGCAGCAGCCACTGGCT
 TTGTCAAAAAGGACCAGTTGGGCAAGGAAGGGTATCAAGACTACGAACCTGAAGCCTAAG
 AAATATCTTTGCTCCCAGTTTCTTGAGATCTGCTGACAGATGTTCCATCCTGTACAAGT
 CTCAGTTCCAATGTGCCAGTCATGACATTTCTCAAAGTTTTTACAGTGTATCTCGAAGT
 CTTCCATCAGCAGTGATTGAAGTATCTGTACCTGCCCCACTCAGCATTTTCGGTGTCTCC
 CTTTCACTGAAGTGAATACATGGTAGCAGGGTCTTTGTGTGCTGTGGATTTTGTGGCTTC
 AATCTACGATGTTAAAACAAATTAACAAACCTAAGTGACTACCACTTATTTCTAAATCC
 TCACTATTTTTTGTGCTGTTGTTTCAGAAGTTGTTAGTGATTTGCTATCATATATTATA
 AGATTTTTAGGTGCTTTTAATGATACTGTCTAAGAATAATGACGTATTGTGAAATTTGT
 TAATATATAATACTTAAAAATATGTGAGCATGAAACTATGCACCTATAAACTAAAT
 ATGAAATTTTACCATTTTGGCATGTGTTTTATTCACTTGTGTTTGTATATAAATGGTGAG
 AATTAATAAAACGTTATCTCATTGCAAAAATAAAAAAAAAAAAAAAAAAAAAA



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_007308 unedited
 GTTCAGTTCACAATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACGAGGCCTC
 GTGCCAATTCGGCACGAGGCTTCTGCCTTCCACCTCGTGAGCGGAGAACTGGGAGTG
 GCCATTCGACGACAGTGTGGTGTAAAGGAATTCATTAGCCATGGATGTATTCATGAAAGG
 ACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAACAGGGTGTGGC
 AGAAGCAGCAGGAAAGACAAAAGAGGGTGTCTCTATGTAGCTCCAAAACCAAGGAGGG
 AGTGGTGCATGGTGTGGCAACAGTGGCTGAGAAGACCAAAGAGCAAGTGACAAATGTTGG
 AGGAGCAGTGGTGACGGGTGTGACAGCAGTAGCCAGAAGACAGTGGAGGGAGCAGGGAG
 CATTGCAGCAGCCACTGGCTTTGTCAAAAAGGACCAGTTGGGCAAGGAAGGGTATCAAGA
 CTACGAACCTGAAGCCTAAGAAATATCTTTGCTCCAGTTTCTTGAGATCTGCTGACAGA
 TGTTCATCCTGTACAAGTGCTCAGTTCCAATGTGCCAGTCATGACATTTCTCANAGTT
 TTTACAGTGTATCTCGAAGTCNTCCATCAGCAGTGATTGAAGTATCTGTACCTGCCCCAC
 TCAGCATNTCGTCTCCCTTCACTGAAGTGAATACATGGTAGCAGGNTCTTTGTGTG
 CTGTGGATTTTGTGGCTTTCATCTACGATGGTAAAACCAATTANAACACCCTAGTGACT
 ACCACTTATTTCTAAATCCTCACTATTTTTTTTGTGCTGGTTGTCAAAGTGGTAGTGAT
 TTGCTATCATATATAATAAGATTTTTAGTGTCTTTAATGAAACTGGCTAGAATTATGAC
 CTATTGA

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_007308 unedited
 NCCCTCGGAATGGCAACTTCCAGGNCCAGNAAAGCACTGGGGNAGGGTCACAGGGATGC
 CACCCGGGATCTGTTCCAGAAACAGCTATGACCGCGCCGCAATCTAGAGTCGAGTTTTT
 TTTTTTTTTTTTTATTTTTGCAATGAGATAACGTTTTATTTAATTCACCATTTATAT
 ACAAACACAAGTGAATAAAACACATCGCAAAATGGTAAAATTTTATATTTAGTATTTATA
 GGTGCATAGTTTCATGCTCACATATTTTTAAGTATTATATATTAACAATTTTACAAT
 ACGTCATTATTCTTAGACAGTATCATTAAAAGACACCTAAAAATCTTATAATATATGATA
 GCAAACTACTAACAACCTTCTGAACAACAGCAACAAAAAATAGTGAGGATTTAGAAATAA
 GTGGTAGTCACCTAGGTGTTTTAATTTGTTTTAACATCGTAGATTGAAGCCACAAAATC
 CACAGCACAAAAGACCCTGCTACCATGTATTCACCTCAGTAAAAGGGAAGCACCAGAAAT
 GCTGAGTGGGGCAGGTACAGATACTTCAATCACTGCTGATGGAAGACTTCGAGATACAC
 TGTAAAAACCTTTGAGAAATGTCATGACTGGGCACATTGGAAGTGAAGCACTTGTACAGGAT
 GGAACATCTGTGACGAGATCTCAAGAACTGGGAGCAAAGATATTTCTTAGGCTTCAGGT
 TCGTAGTCTTGATACCCTTCCTTGCCCAACTGGTCTTTTTGACAAACCAGTGGCTGCTG
 CAATGCTCCCTGCTCCCTCCACTGTCTTCTGGGCTACTGCTGTCACCCGTCACCACTG
 GCTCTCCAACATTTGTCACCTTGCTTTTGGGTCTCTCAGCCCTGTTGCCACACATGCACA
 CTCCTNCTTGG

Restriction Sites:

Please inquire

ACCN:

NM_007308

Insert Size:

1000 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](#)

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.

RefSeq: [NM_007308.1](#), [NP_009292.1](#)

RefSeq Size: 1096 bp

RefSeq ORF: 339 bp

Locus ID: 6622

UniProt ID: [P37840](#)

Cytogenetics: 4q22.1

Domains: Synuclein

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, Parkinson's disease

Gene Summary:

Alpha-synuclein is a member of the synuclein family, which also includes beta- and gamma-synuclein. Synucleins are abundantly expressed in the brain and alpha- and beta-synuclein inhibit phospholipase D2 selectively. SNCA may serve to integrate presynaptic signaling and membrane trafficking. Defects in SNCA have been implicated in the pathogenesis of Parkinson disease. SNCA peptides are a major component of amyloid plaques in the brains of patients with Alzheimer's disease. Alternatively spliced transcripts encoding different isoforms have been identified for this gene. [provided by RefSeq, Feb 2016]

Transcript Variant: This variant (4, also known as NACP112) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (NACP112) has the same N- and C-termini but is shorter compared to isoform NACP140. 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.