

Product datasheet for RC210606

alpha Synuclein (SNCA) (NM_000345) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: alpha Synuclein (SNCA) (NM_000345) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: alpha Synuclein
Synonyms: NACP; PARK1; PARK4; PD1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC210606 representing NM_000345
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGTATTTCATGAAAGGACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAAC
 AGGGTGTGGCAGAAGCAGCAGGAAAGACAAAAGAGGGTGTCTCTATGTAGGCTCCAAAACCAAGGAGGG
 AGTGGTGCATGGTGTGGCAACAGTGGCTGAGAAGACCAAAGCAAGTGACAAATGTTGGAGGAGCAGTG
 GTGACGGGTGTGACAGCAGTAGCCAGAAAGACAGTGGAGGGAGCAGGGAGCATTGCAGCAGCCACTGGCT
 TTGTCAAAAAGGACCAGTTGGCAAGAATGAAGAAGGAGCCCCACAGGAAGGAATTCTGGAAGATATGCC
 TGTGGATCCTGACAATGAGGCTTATGAAATGCCTTCTGAGGAAGGGTATCAAGACTACGAACCTGAAGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC210606 representing NM_000345
 Red=Cloning site Green=Tags(s)

MDVFMKGLSKAKEGVVAAAEKTKQGVAAEAGKTKEGVL YVGSKTKEGVVHGVATVAEKTKEQVTNVGGAV
 VTGVTAVAQKTVEGAGSIAAATGFVKDQLGKNEEGAPQEGILEDMPVDPDNEAYEMPSEEGYQDYEPEA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2667_b04.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:


ACCN: NM_000345

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](#)

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_000345.4](#)

RefSeq Size: 1543 bp

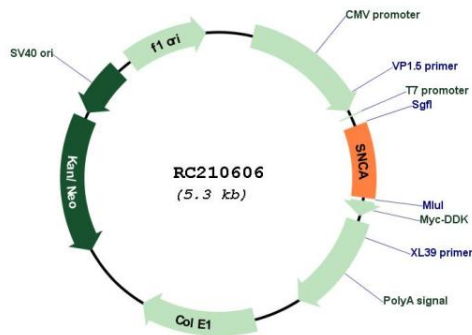
RefSeq ORF: 423 bp

Locus ID: 6622
 UniProt ID: [P37840](#)
 Cytogenetics: 4q22.1

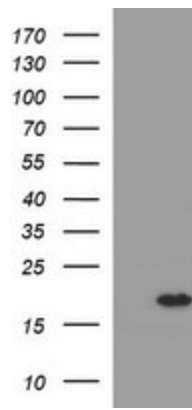
Domains: Synuclein
 Protein Families: Druggable Genome
 Protein Pathways: Alzheimer's disease, Parkinson's disease
 MW: 14.3 kDa

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]

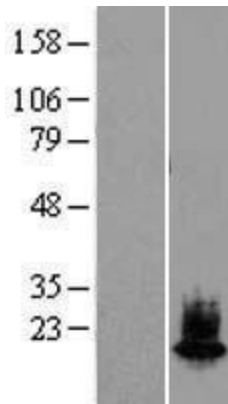
Product images:



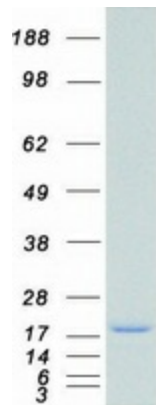
Circular map for RC210606



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SNCA (Cat# RC210606, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SNCA (Cat# [TA506533]). Positive lysates [LY400127] (100ug) and [LC400127] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY431764]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228736] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SNCA protein (Cat# [TP310606]). The protein was produced from HEK293T cells transfected with SNCA cDNA clone (Cat# RC210606) using MegaTran 2.0 (Cat# [TT210002]).