

Product datasheet for **RC221446**

alpha Synuclein (SNCA) (NM_007308) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
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: >RC221446 representing NM_007308
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGTATTCATGAAAGGACTTTCAAAGGCCAAGGAGGGAGTTGTGGCTGCTGCTGAGAAAACCAAAC
AGGGTGTGGCAGAAGCAGCAGGAAAGACAAAAGAGGGTGTCTCTATGTAGGCTCCAAACCAAGGAGGG
AGTGGTGCATGGTGTGGCAACAGTGGCTGAGAAGACCAAGAGCAAGTGACAAATGTTGGAGGAGCAGTG
GTGACGGGTGTGACAGCAGTAGCCAGAACAGTGGAGGGAGCAGGGAGCATTGCAGCAGCCACTGGCT
TTGTCAAAAAGGACCAGTTGGCAAGGAAGGTATCAAGACTACGAACCTGAAGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221446 representing NM_007308
Red=Cloning site Green=Tags(s)

MDVFMKGLSKAKEGVVAAAEKTKQGVAEAGKTKEGVLVVGSKTKEGVVHGVATVAEKTKEQVTNVGGAV
VTGVTAVAQKTVEGAGSIAAATGFVKDQLGKEGYQDYEPEA

TRTRPLE**QKLISEEDLA**ANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6489_c01.zip

Restriction Sites: SgfI-MluI



[View online »](#)

Cloning Scheme:



ACCN: NM_007308

ORF Size: 336 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_007308.2](#)

RefSeq Size: 1096 bp

RefSeq ORF: 339 bp

Locus ID: 6622

UniProt ID: [P37840](#)

Cytogenetics: 4q22.1

Domains: Synuclein

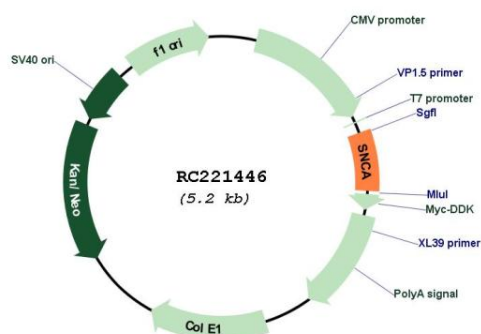
Protein Families: Druggable Genome

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

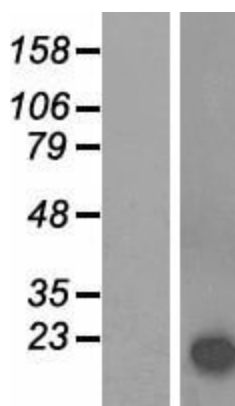
MW: 11.2 kDa

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]

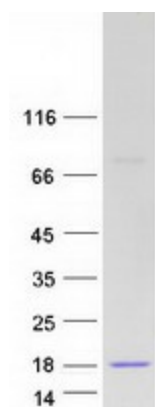
Product images:



Circular map for RC221446



Western blot validation of overexpression lysate (Cat# [LY416080]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221446 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SNCA protein (Cat# [TP321446]). The protein was produced from HEK293T cells transfected with SNCA cDNA clone (Cat# RC221446) using MegaTran 2.0 (Cat# [TT210002]).