

Resource Summary Report

Generated by [RRID](#) on Aug 17, 2026

pET21a-alpha-synuclein

RRID:Addgene_51486

Type: Plasmid

Proper Citation

RRID:Addgene_51486

Plasmid Information

URL: <http://www.addgene.org/51486>

Proper Citation: RRID:Addgene_51486

Insert Name: alpha-synuclein

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Vector Backbone Description: Backbone Marker:Novagen; Backbone Size:5443; Vector Backbone:pET21a; Vector Types:Bacterial Expression; Bacterial Resistance:Ampicillin

Comments: DNA synthesis and subcloning outsourced to Genscript.

Plasmid Name: pET21a-alpha-synuclein

Record Creation Time: 20220422T222303+0000

Record Last Update: 20260815T081614+0000

Ratings and Alerts

No rating or validation information has been found for pET21a-alpha-synuclein.

No alerts have been found for pET21a-alpha-synuclein.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 20 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Baffour K, et al. (2025) Modulation of α -Synuclein Fibrillation and Toxicity by 4-Phenylbutyric Acid. ACS chemical neuroscience, 16(6), 1066.

Stykel MG, et al. (2025) G6PD deficiency triggers dopamine loss and the initiation of Parkinson's disease pathogenesis. Cell reports, 44(1), 115178.

Huang W, et al. (2024) In situ single-molecule investigations of the impacts of biochemical perturbations on conformational intermediates of monomeric α -synuclein. APL bioengineering, 8(1), 016114.

Horne RI, et al. (2024) Discovery of potent inhibitors of α -synuclein aggregation using structure-based iterative learning. Nature chemical biology, 20(5), 634.

Sanyal A, et al. (2024) Constitutive Endolysosomal Perforation in Neurons allows Induction of α -Synuclein Aggregation by Internalized Pre-Formed Fibrils. bioRxiv : the preprint server for biology.

Khan T, et al. (2024) Understanding the Modulation of α -Synuclein Fibrillation by N-Acetyl Aspartate: A Brain Metabolite. ACS omega, 9(10), 12262.

Watt KJC, et al. (2022) Library-Derived Peptide Aggregation Modulators of Parkinson's Disease Early-Onset α -Synuclein Variants. ACS chemical neuroscience, 13(12), 1790.

Jakubec M, et al. (2021) Cholesterol-containing lipid nanodiscs promote an α -synuclein binding mode that accelerates oligomerization. The FEBS journal, 288(6), 1887.

Fonseca-Ornelas L, et al. (2021) Altered conformation of α -synuclein drives dysfunction of synaptic vesicles in a synaptosomal model of Parkinson's disease. Cell reports, 36(1), 109333.

Mohapatra A, et al. (2021) Polymyxin B accelerates the α -synuclein aggregation. Biophysical chemistry, 277, 106628.

Jarvela TS, et al. (2021) A protease protection assay for the detection of internalized alpha-synuclein pre-formed fibrils. PloS one, 16(1), e0241161.

Hojjatian A, et al. (2021) Tau induces formation of α -synuclein filaments with distinct molecular conformations. Biochemical and biophysical research communications, 554, 145.

Stykel MG, et al. (2021) α -Synuclein mutation impairs processing of endomembrane compartments and promotes exocytosis and seeding of α -synuclein pathology. Cell reports, 35(6), 109099.

Mohapatra A, et al. (2021) N-terminal acetylation does not alter α -synuclein's interfacial properties. International journal of biological macromolecules, 174, 69.

Farzam A, et al. (2020) A functionalized hydroxydopamine quinone links thiol modification to neuronal cell death. *Redox biology*, 28, 101377.

Biverstål H, et al. (2020) Functionalization of amyloid fibrils via the Bri2 BRICHOS domain. *Scientific reports*, 10(1), 21765.

Rovere M, et al. (2019) E46K-like α -synuclein mutants increase lipid interactions and disrupt membrane selectivity. *The Journal of biological chemistry*, 294(25), 9799.

Stykel MG, et al. (2018) Nitration of microtubules blocks axonal mitochondrial transport in a human pluripotent stem cell model of Parkinson's disease. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 32(10), 5350.

Rovere M, et al. (2018) pTSara-NatB, an improved N-terminal acetylation system for recombinant protein expression in *E. coli*. *PloS one*, 13(7), e0198715.

Ryan T, et al. (2018) Cardiolipin exposure on the outer mitochondrial membrane modulates α -synuclein. *Nature communications*, 9(1), 817.