

Resource Summary Report

Generated by [NIF](#) on Jul 30, 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: 20260725T074813+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 [NIF](#) .

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

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

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.

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*.

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

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.

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

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

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.