

Resource Summary Report

Generated by SPARC SAWG on Aug 11, 2026

B6;C3-Tg(Prnp-SNCA*A53T)83Vle/J

RRID:IMSR_JAX:004479

Type: Organism

Proper Citation

RRID:IMSR_JAX:004479

Organism Information

URL: <https://www.jax.org/strain/004479>

Proper Citation: RRID:IMSR_JAX:004479

Description: Mus musculus with name B6;C3-Tg(Prnp-SNCA*A53T)83Vle/J from IMSR.

Species: Mus musculus

Synonyms: M83. B6;C3H-Tg(SNCA)83Vle/J

Notes: gene symbol note: prion protein|transgene insertion 83; Virginia M-Y Lee|synuclein alpha; mutant stock: Prnp|Tg(Prnp-SNCA*A53T)83Vle|SNCA

Affected Gene: prion protein|transgene insertion 83; Virginia M-Y Lee|synuclein alpha

Genomic Alteration: transgene insertion 83; Virginia M-Y Lee

Catalog Number: JAX:004479

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6;C3-Tg(Prnp-SNCA*A53T)83Vle/J

Record Creation Time: 20250513T053645+0000

Record Last Update: 20260808T050846+0000

Ratings and Alerts

No rating or validation information has been found for B6;C3-Tg(Prnp-SNCA*A53T)83Vle/J.

No alerts have been found for B6;C3-Tg(Prnp-SNCA*A53T)83Vle/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 31 mentions in open access literature.

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

Princz-Lebel O, et al. (2026) Impairment in stimulus-response learning as a cognitive biomarker in a model of synucleinopathy. *Translational psychiatry*, 16(1), 18.

Arrar A, et al. (2026) Insulin resistance induced by pesticides is overcome by pancreatic islet adaptation in a mouse model of Parkinson's disease. *Molecular metabolism*, 109, 102388.

Puangmalai N, et al. (2026) Connexin 50 mediates disease-relevant alpha-synuclein oligomer propagation and neuroinflammation in neurodegenerative disease. *iScience*, 29(7), 116399.

So RWL, et al. (2026) Stochastic misfolding drives the emergence of distinct α -synuclein strains. *Neuron*, 114(11), 1951.

Zhu B, et al. (2026) Highly sensitive chemiluminescence imaging of misfolded proteins in neurodegenerative models. *Proceedings of the National Academy of Sciences of the United States of America*, 123(2), e2513311123.

Tullo S, et al. (2025) Female mice exhibit resistance to disease progression despite early pathology in a transgenic mouse model inoculated with alpha-synuclein fibrils. *Communications biology*, 8(1), 288.

Nair N, et al. (2025) Temporal and Spatial Dynamics of Motor Dysfunction in Preclinical Parkinson's Disease and Aging. *Journal of psychiatry and brain science*, 10(4).

Leandrou E, et al. (2025) N-type Ca^{2+} channels mediate the stimuli-dependent α -synuclein secretion in mouse striatum. *NPJ Parkinson's disease*, 11(1), 276.

Ma Q, et al. (2025) Oligodendrocytes drive neuroinflammation and neurodegeneration in Parkinson's disease via the prosaposin-GPR37-IL-6 axis. *Cell reports*, 44(2), 115266.

Du XY, et al. (2025) Attenuating α -synuclein pathology in mice with in situ engineered astrocytes. *Translational neurodegeneration*, 14(1), 58.

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

Zhu B, et al. (2025) Highly sensitive chemiluminescence imaging of misfolded proteins in neurodegenerative models. *bioRxiv : the preprint server for biology*.

Bay S, et al. (2024) Synthesis and Characterization of Click Chemical Probes for Single-Cell Resolution Detection of Epichaperomes in Neurodegenerative Disorders. *Biomedicines*, 12(6).

Choi SG, et al. (2024) Alpha-synuclein aggregates are phosphatase resistant. *bioRxiv : the preprint server for biology*.

Belur NR, et al. (2024) Nuclear aggregates of NONO/SFPQ and A-to-I-edited RNA in Parkinson's disease and dementia with Lewy bodies. *Neuron*, 112(15), 2558.

Sung CC, et al. (2024) The role of polo-like kinases 2 in the proteasomal and lysosomal degradation of alpha-synuclein in neurons. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 38(20), e70121.

Choi SG, et al. (2024) Alpha-synuclein aggregates are phosphatase resistant. *Acta neuropathologica communications*, 12(1), 84.

Leandrou E, et al. (2024) α -Synuclein oligomers potentiate neuroinflammatory NF- κ B activity and induce Cav3.2 calcium signaling in astrocytes. *Translational neurodegeneration*, 13(1), 11.

Anagnostou D, et al. (2023) Assessment of Aggregated and Exosome-Associated α -Synuclein in Brain Tissue and Cerebrospinal Fluid Using Specific Immunoassays. *Diagnostics (Basel, Switzerland)*, 13(13).

McQuade RM, et al. (2021) The association of enteric neuropathy with gut phenotypes in acute and progressive models of Parkinson's disease. *Scientific reports*, 11(1), 7934.