

Resource Summary Report

Generated by [NIF](#) on Sep 17, 2026

B6;129X1-Snca^{tm1Rosl}/J

RRID:IMSR_JAX:003692

Type: Organism

Proper Citation

RRID:IMSR_JAX:003692

Organism Information

URL: <https://www.jax.org/strain/003692>

Proper Citation: RRID:IMSR_JAX:003692

Description: Mus musculus with name B6;129X1-Snca^{tm1Rosl}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: synuclein; alpha; mutant stock: Snca

Affected Gene: synuclein; alpha

Genomic Alteration: targeted mutation 1; Arnon Rosenthal

Catalog Number: JAX:003692

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: embryo

Organism Name: B6;129X1-Snca^{tm1Rosl}/J

Record Creation Time: 20250513T053640+0000

Record Last Update: 20260912T060425+0000

Ratings and Alerts

No rating or validation information has been found for B6;129X1-Snca^{tm1Rosl}/J.

No alerts have been found for B6;129X1-Snca^{tm1Rosl}/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Choi SJ, et al. (2026) ?-Synuclein expression is required for somatodendritic dopamine release and immediate early gene induction. *Science advances*, 12(5), eady6978.

Moschonas EH, et al. (2025) Assessment of Neurobehavioral Performance and Markers of Synaptic Vesicle Trafficking in an Alpha-Synuclein Knockout Mouse Model after Controlled Cortical Impact Injury. *Neurotrauma reports*, 6(1), 854.

Brimblecombe KR, et al. (2024) Inhibition of striatal dopamine release by the L-type calcium channel inhibitor isradipine co-varies with risk factors for Parkinson's. *The European journal of neuroscience*, 59(6), 1242.

Nanclares C, et al. (2023) Dysregulation of astrocytic Ca²⁺ signaling and gliotransmitter release in mouse models of ?-synucleinopathies. *Acta neuropathologica*, 145(5), 597.

Dening Y, et al. (2022) Toxicity of extracellular alpha-synuclein is independent of intracellular alpha-synuclein. *Scientific reports*, 12(1), 21951.

Chen L, et al. (2022) Synaptic location is a determinant of the detrimental effects of ?-synuclein pathology to glutamatergic transmission in the basolateral amygdala. *eLife*, 11.

Sauerbeck AD, et al. (2021) Alpha-synuclein increases in rodent and human spinal cord injury and promotes inflammation and tissue loss. *Scientific reports*, 11(1), 11720.

Li N, et al. (2020) Immunoregulation of microglial polarization: an unrecognized physiological function of ?-synuclein. *Journal of neuroinflammation*, 17(1), 272.

Somayaji M, et al. (2020) A dual role for ?-synuclein in facilitation and depression of dopamine release from substantia nigra neurons in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, 117(51), 32701.

Yun SP, et al. (2018) ?-Synuclein accumulation and GBA deficiency due to L444P GBA mutation contributes to MPTP-induced parkinsonism. *Molecular neurodegeneration*, 13(1), 1.

Spencer B, et al. (2017) Anti-?-synuclein immunotherapy reduces ?-synuclein propagation in the axon and degeneration in a combined viral vector and transgenic model of synucleinopathy. *Acta neuropathologica communications*, 5(1), 7.

Chermenina M, et al. (2015) Single injection of small-molecule amyloid accelerator results in cell death of nigral dopamine neurons in mice. *NPJ Parkinson's disease*, 1, 15024.