

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 26, 2026

Syn-ATP

RRID:Addgene_51819

Type: Plasmid

Proper Citation

RRID:Addgene_51819

Plasmid Information

URL: <http://www.addgene.org/51819>

Proper Citation: RRID:Addgene_51819

Insert Name: Chimeric Synaptophysin-mCherry-Luciferase

Organism: Rattus norvegicus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24529383](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5446; Vector Backbone:pcDNA3; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Plasmid Name: Syn-ATP

Relevant Mutation: Within WT luciferase gene, changed Threonine 214 to Alanine, changed Alanine 215 to Leucine, changed Isoleucine 232 to Alanine, changed Phenylalanine 295 to Leucine, changed Glutamic Acid 354 to Lysine, changed Isoleucine 423 to Leucine, and changed Aspartic Acid 436 to Glycine.

Record Creation Time: 20220422T222304+0000

Record Last Update: 20260826T042324+0000

Ratings and Alerts

No rating or validation information has been found for Syn-ATP.

No alerts have been found for Syn-ATP.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 4 mentions in open access literature.

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

Dehkharghanian T, et al. (2022) Semiautomated analysis of an optical ATP indicator in neurons. Neurophotonics, 9(4), 041410.

Auguste YSS, et al. (2022) Oligodendrocyte precursor cells engulf synapses during circuit remodeling in mice. Nature neuroscience, 25(10), 1273.

Woo D, et al. (2019) Locally Activating TrkB Receptor Generates Actin Waves and Specifies Axonal Fate. Cell chemical biology, 26(12), 1652.

Granatiero V, et al. (2019) Nrf2 signaling links ER oxidative protein folding and calcium homeostasis in health and disease. Life science alliance, 2(5).