

Resource Summary Report

Generated by [NIF](#) on Jul 29, 2026

pEF5B-FRT-GFP-?TAT1

RRID:Addgene_27099

Type: Plasmid

Proper Citation

RRID:Addgene_27099

Plasmid Information

URL: <http://www.addgene.org/27099>

Proper Citation: RRID:Addgene_27099

Insert Name: ?-Tubulin K40 acetyltransferase1

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:21068373](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5971; Vector Backbone:pEF5B-FRT-LAP-DEST; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Plasmid Name: pEF5B-FRT-GFP-?TAT1

Record Creation Time: 20220422T222121+0000

Record Last Update: 20260725T074515+0000

Ratings and Alerts

No rating or validation information has been found for pEF5B-FRT-GFP-?TAT1.

No alerts have been found for pEF5B-FRT-GFP-?TAT1.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 16 mentions in open access literature.

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

Shen Y, et al. (2024) Microtubule-associated protein MAP7 promotes tubulin posttranslational modifications and cargo transport to enable osmotic adaptation. *Developmental cell*, 59(12), 1553.

Glon D, et al. (2022) Essential role of hyperacetylated microtubules in innate immunity escape orchestrated by the EBV-encoded BHRF1 protein. *PLoS pathogens*, 18(3), e1010371.

Collins C, et al. (2021) Tubulin acetylation promotes penetrative capacity of cells undergoing radial intercalation. *Cell reports*, 36(7), 109556.

Ko P, et al. (2021) Microtubule Acetylation Controls MDA-MB-231 Breast Cancer Cell Invasion through the Modulation of Endoplasmic Reticulum Stress. *International journal of molecular sciences*, 22(11).

Nowosad A, et al. (2021) p27 controls autophagic vesicle trafficking in glucose-deprived cells via the regulation of ATAT1-mediated microtubule acetylation. *Cell death & disease*, 12(5), 481.

Horníková L, et al. (2020) The Major Capsid Protein, VP1, of the Mouse Polyomavirus Stimulates the Activity of Tubulin Acetyltransferase 1 by Microtubule Stabilization. *Viruses*, 12(2).

Coombes CE, et al. (2020) Non-enzymatic Activity of the γ -Tubulin Acetyltransferase γ TAT Limits Synaptic Bouton Growth in Neurons. *Current biology : CB*, 30(4), 610.

Groebner JL, et al. (2019) Alcohol-induced microtubule acetylation leads to the accumulation of large, immobile lipid droplets. *American journal of physiology. Gastrointestinal and liver physiology*, 317(4), G373.

Fernández-Barrera J, et al. (2018) The actin-MRTF-SRF transcriptional circuit controls tubulin acetylation via γ -TAT1 gene expression. *The Journal of cell biology*, 217(3), 929.

Morelli G, et al. (2018) p27Kip1 Modulates Axonal Transport by Regulating γ -Tubulin Acetyltransferase 1 Stability. *Cell reports*, 23(8), 2429.

Shah N, et al. (2018) TAK1 activation of α -TAT1 and microtubule hyperacetylation control AKT signaling and cell growth. *Nature communications*, 9(1), 1696.

Lin S, et al. (2017) Effects of γ TAT1 and HDAC5 on axonal regeneration in adult neurons. *PloS one*, 12(5), e0177496.

Zhang S, et al. (2017) Inclusion Body Fusion of Human Parainfluenza Virus Type 3 Regulated by Acetylated γ -Tubulin Enhances Viral Replication. *Journal of virology*, 91(3).

Boggs AE, et al. (2015) γ -Tubulin acetylation elevated in metastatic and basal-like breast cancer cells promotes microtentacle formation, adhesion, and invasive migration. *Cancer research*, 75(1), 203.

Davenport AM, et al. (2014) Structural and functional characterization of the γ -tubulin acetyltransferase MEC-17. *Journal of molecular biology*, 426(14), 2605.

Mackeh R, et al. (2014) Reactive oxygen species, AMP-activated protein kinase, and the transcription cofactor p300 regulate γ -tubulin acetyltransferase-1 (γ TAT-1/MEC-17)-dependent microtubule hyperacetylation during cell stress. *The Journal of biological chemistry*, 289(17), 11816.