

Resource Summary Report

Generated by [RRID](#) on Aug 21, 2026

pTRE-Tight-MitoTimer

RRID:Addgene_50547

Type: Plasmid

Proper Citation

RRID:Addgene_50547

Plasmid Information

URL: <http://www.addgene.org/50547>

Proper Citation: RRID:Addgene_50547

Insert Name: MitoTimer

Organism: Other

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24128932](#)

Vector Backbone Description: Backbone Marker:Clonotech; Backbone Size:2516; Vector Backbone:pTRE Tight; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: The F12S mutation in Timer does not affect the function of the plasmid, as described in the associated publication. The Timer sequence is preceded by the mitochondrial targeting sequence from cytochrome c oxidase subunit 8A:
MSVLTPLLLRGLTGSARRLPVPRAKIHSL

Plasmid Name: pTRE-Tight-MitoTimer

Relevant Mutation: F12S mutation in Timer

Record Creation Time: 20220422T222259+0000

Record Last Update: 20260815T081606+0000

Ratings and Alerts

No rating or validation information has been found for pTRE-Tight-MitoTimer.

No alerts have been found for pTRE-Tight-MitoTimer.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 15 mentions in open access literature.

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

Mironova YA, et al. (2026) Myelin is repaired by constitutive differentiation of oligodendrocyte progenitors. *Science (New York, N.Y.)*, 391(6783), eadu2896.

Punzi S, et al. (2025) Early tolerance and late persistence as alternative drug responses in cancer. *Nature communications*, 16(1), 1291.

Jeong Y, et al. (2025) Glaucoma-associated Optineurin mutations increase transcellular degradation of mitochondria in a vertebrate optic nerve. *eLife*, 14.

Jeong Y, et al. (2023) Glaucoma-associated Optineurin mutations increase transmitophagy in a vertebrate optic nerve. *bioRxiv : the preprint server for biology*.

Ma X, et al. (2023) Methods for Monitoring Mitochondrial Biogenesis and Turnover in Cultured Hepatocytes and Mouse Liver Using MitoTimer Reporter Assay. *Methods in molecular biology (Clifton, N.J.)*, 2675, 97.

Danese A, et al. (2022) Pathological mitophagy disrupts mitochondrial homeostasis in Leber's hereditary optic neuropathy. *Cell reports*, 40(3), 111124.

Meng Q, et al. (2022) Rosiglitazone Ameliorates Spinal Cord Injury via Inhibiting Mitophagy and Inflammation of Neural Stem Cells. *Oxidative medicine and cellular longevity*, 2022, 5583512.

Wang SH, et al. (2021) LncRNA H19 governs mitophagy and restores mitochondrial respiration in the heart through Pink1/Parkin signaling during obesity. *Cell death & disease*, 12(6), 557.

Krantz S, et al. (2021) Mitophagy mediates metabolic reprogramming of induced pluripotent stem cells undergoing endothelial differentiation. *The Journal of biological chemistry*, 297(6), 101410.

Martín-Maestro P, et al. (2021) Corrigendum to "Slower Dynamics and Aged Mitochondria in Sporadic Alzheimer's Disease". *Oxidative medicine and cellular longevity*, 2021, 1643631.

Yu B, et al. (2020) Mitochondrial phosphatase PGAM5 modulates cellular senescence by regulating mitochondrial dynamics. *Nature communications*, 11(1), 2549.

Geng J, et al. (2019) TIGAR regulates mitochondrial functions through SIRT1-PGC1 γ pathway and translocation of TIGAR into mitochondria in skeletal muscle. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 33(5),

6082.

Ziegler PK, et al. (2018) Mitophagy in Intestinal Epithelial Cells Triggers Adaptive Immunity during Tumorigenesis. *Cell*, 174(1), 88.

Bartolomé A, et al. (2017) MTORC1 Regulates both General Autophagy and Mitophagy Induction after Oxidative Phosphorylation Uncoupling. *Molecular and cellular biology*, 37(23).

Martín-Maestro P, et al. (2017) Slower Dynamics and Aged Mitochondria in Sporadic Alzheimer's Disease. *Oxidative medicine and cellular longevity*, 2017, 9302761.