Resource Summary Report

Generated by NIF on Aug 31, 2026

pUC57-mitoLbNOX

RRID:Addgene_74448
Type: Plasmid

Proper Citation

RRID:Addgene_74448

Plasmid Information

URL: http://www.addgene.org/74448

Proper Citation: RRID:Addgene_74448

Insert Name: mitoLbNOX

Organism: Lactobacillus brevis

Bacterial Resistance: Kanamycin

Defining Citation: PMID:27124460

Vector Backbone Description: Backbone Size:2710; Vector Backbone:PUC57; Vector Types:; Bacterial Resistance:Kanamycin

Comments: In our original publication we express mitoLbNOX in mammalian cells using a Tet3G dox-inducible system from Clontech. We cannot distribute those exact plasmids due to Clontech license restrictions. We recommend that investigators subclone this mitoLbNOX sequence into their preferred expression system.

Plasmid Name: pUC57-mitoLbNOX

Relevant Mutation: Human codon optimized

Record Creation Time: 20220422T222454+0000

Record Last Update: 20260829T081012+0000

Ratings and Alerts

No rating or validation information has been found for pUC57-mitoLbNOX.

No alerts have been found for pUC57-mitoLbNOX.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at NIF .

Lin M, et al. (2026) Complex I protein NDUFB9 is a metabolic vulnerability in triple negative breast cancer brain metastases. Nature communications, 17(1).

Xie A, et al. (2026) Citrate clearance is a major function of aconitase 2 in the canonical TCA cycle. Cell, 189(9), 2684.

Nguyen TT, et al. (2025) The mevalonate pathway couples lipid metabolism to amino acid synthesis via ubiquinone-dependent redox control. bioRxiv : the preprint server for biology.

Marques-Carvalho A, et al. (2025) Estrogens protect bone mass by inhibiting NAD+ metabolism in osteoclasts. bioRxiv : the preprint server for biology.

Erdem A, et al. (2025) Lactate dehydrogenase A-coupled NAD+ regeneration is critical for acute myeloid leukemia cell survival. Cancer & metabolism, 13(1), 22.

Choe M, et al. (2025) Genetically encoded tool for manipulation of ??m identifies its role as the driver of ISR induced by ATP synthase dysfunction. Cell chemical biology, 32(4), 620.

D'Alessandro KB, et al. (2025) Genetic modulation of mitochondrial NAD+ regeneration does not prevent dopaminergic neuron dysfunction caused by mitochondrial complex I impairment. Frontiers in cell and developmental biology, 13, 1650462.

Erdem A, et al. (2025) Lactate dehydrogenase A-coupled NAD+ regeneration is critical for acute myeloid leukemia cell survival. bioRxiv : the preprint server for biology.

Higurashi M, et al. (2025) Respiratory complex I-mediated NAD+ regeneration regulates cancer cell proliferation through the transcriptional and translational control of p21Cip1 expression by SIRT3 and SIRT7. Molecular oncology, 19(6), 1775.

Mahmood M, et al. (2024) Mitochondrial DNA mutations drive aerobic glycolysis to enhance checkpoint blockade response in melanoma. Nature cancer.

Mahmood M, et al. (2023) Tumour mitochondrial DNA mutations drive aerobic glycolysis to enhance checkpoint blockade. bioRxiv : the preprint server for biology.

Balderas E, et al. (2022) Mitochondrial calcium uniporter stabilization preserves energetic homeostasis during Complex I impairment. Nature communications, 13(1), 2769.

Altea-Manzano P, et al. (2022) Reversal of mitochondrial malate dehydrogenase 2 enables anaplerosis via redox rescue in respiration-deficient cells. Molecular cell, 82(23),

4537.

Vardhana SA, et al. (2020) Impaired mitochondrial oxidative phosphorylation limits the self-renewal of T cells exposed to persistent antigen. Nature immunology, 21(9), 1022.