

Resource Summary Report

Generated by [RRID](#) on Aug 19, 2026

CMV-mito-CAR-GECO1

RRID:Addgene_46022

Type: Plasmid

Proper Citation

RRID:Addgene_46022

Plasmid Information

URL: <http://www.addgene.org/46022>

Proper Citation: RRID:Addgene_46022

Insert Name: CAR-GECO1

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23452507](https://pubmed.ncbi.nlm.nih.gov/23452507/)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5600; Vector Backbone:pcDNA3.1 (-); Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: The vector of the CMV-mito-CAR-GECO1 is based on the mitATeam1.03 pcDNA plasmid reported here: (<http://www.pnas.org/content/106/37/15651.abstract>).

Plasmid Name: CMV-mito-CAR-GECO1

Relevant Mutation: R-GECO1 E163V/I166V/V174T/M176I/F222I/A302P

Record Creation Time: 20220422T222237+0000

Record Last Update: 20260815T081528+0000

Ratings and Alerts

No rating or validation information has been found for CMV-mito-CAR-GECO1.

No alerts have been found for CMV-mito-CAR-GECO1.

Data and Source Information

Usage and Citation Metrics

We found 14 mentions in open access literature.

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

Chandra G, et al. (2021) Endoplasmic reticulum maintains ion homeostasis required for plasma membrane repair. *The Journal of cell biology*, 220(5).

Martens MD, et al. (2021) Misoprostol treatment prevents hypoxia-induced cardiac dysfunction through a 14-3-3 and PKA regulatory motif on Bnip3. *Cell death & disease*, 12(12), 1105.

da Silva Rosa SC, et al. (2021) BNIP3L/Nix-induced mitochondrial fission, mitophagy, and impaired myocyte glucose uptake are abrogated by PRKA/PKA phosphorylation. *Autophagy*, 17(9), 2257.

Ledderose C, et al. (2021) Frontline Science: P2Y11 receptors support T cell activation by directing mitochondrial trafficking to the immune synapse. *Journal of leukocyte biology*, 109(3), 497.

Kondo Y, et al. (2020) Adenosine 5'-Monophosphate Protects from Hypoxia by Lowering Mitochondrial Metabolism and Oxygen Demand. *Shock (Augusta, Ga.)*, 54(2), 237.

Horn A, et al. (2020) Mitochondrial fragmentation enables localized signaling required for cell repair. *The Journal of cell biology*, 219(5).

Woehrle T, et al. (2019) Autocrine stimulation of P2Y1 receptors is part of the purinergic signaling mechanism that regulates T cell activation. *Purinergic signalling*, 15(2), 127.

Sueyoshi K, et al. (2019) Lipopolysaccharide suppresses T cells by generating extracellular ATP that impairs their mitochondrial function via P2Y11 receptors. *The Journal of biological chemistry*, 294(16), 6283.

Mughal W, et al. (2018) Myocardin regulates mitochondrial calcium homeostasis and prevents permeability transition. *Cell death and differentiation*, 25(10), 1732.

Field JT, et al. (2018) Misoprostol regulates Bnip3 repression and alternative splicing to control cellular calcium homeostasis during hypoxic stress. *Cell death discovery*, 4, 37.

Horn A, et al. (2017) Mitochondrial redox signaling enables repair of injured skeletal muscle cells. *Science signaling*, 10(495).

Ledderose C, et al. (2016) Mitochondrial Dysfunction, Depleted Purinergic Signaling, and Defective T Cell Vigilance and Immune Defense. *The Journal of infectious diseases*, 213(3), 456.

Pecze L, et al. (2015) Routes of Ca²⁺ Shuttling during Ca²⁺ Oscillations: FOCUS ON THE ROLE OF MITOCHONDRIAL Ca²⁺ HANDLING AND CYTOSOLIC Ca²⁺ BUFFERS.

The Journal of biological chemistry, 290(47), 28214.

Ledderose C, et al. (2014) Mitochondria are gate-keepers of T cell function by producing the ATP that drives purinergic signaling. The Journal of biological chemistry, 289(37), 25936.