

Resource Summary Report

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

CMV-ER-LAR-GECO1

RRID:Addgene_61244

Type: Plasmid

Proper Citation

RRID:Addgene_61244

Plasmid Information

URL: <http://www.addgene.org/61244>

Proper Citation: RRID:Addgene_61244

Insert Name: LAR-GECO1

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:25164254](#)

Vector Backbone Description: Backbone Size:3200; Vector Backbone:Customized Vector; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: The construct is numbered based on GCaMP.

Plasmid Name: CMV-ER-LAR-GECO1

Relevant Mutation: Substitutions relative to R-GECO1:
V51W/I113V/N356S/D363Y/D381Y/F395A/V411A/L415I

Record Creation Time: 20220422T222351+0000

Record Last Update: 20260815T081740+0000

Ratings and Alerts

No rating or validation information has been found for CMV-ER-LAR-GECO1.

No alerts have been found for CMV-ER-LAR-GECO1.

Data and Source Information

Usage and Citation Metrics

We found 17 mentions in open access literature.

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

Zavala MR, et al. (2026) An INF2-dependent actin-mediated step in inositol 1,4,5-trisphosphate receptor cluster formation and activity. *Current biology : CB*, 36(12), 3088.

Davi V, et al. (2026) Endoplasmic Reticulum Geometry Dictates Neuronal Bursting via Calcium Store Refill Rates and Exposes Selective Neuronal Vulnerability. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 13(36), e21101.

Theodoulou A, et al. (2025) Stbd1 stimulates AMPK signaling and alleviates insulin resistance in an in vitro hepatocyte model. *The FEBS journal*, 292(11), 2882.

Field JT, et al. (2025) The mitophagy receptor BNIP3L/Nix coordinates nuclear calcium signaling to modulate the muscle phenotype. *Autophagy*, 21(7), 1544.

Ryu G, et al. (2024) Urolithin A Protects Hepatocytes from Palmitic Acid-Induced ER Stress by Regulating Calcium Homeostasis in the MAM. *Biomolecules*, 14(12).

Campbell EP, et al. (2023) Electrical signals in the ER are cell type and stimulus specific with extreme spatial compartmentalization in neurons. *Cell reports*, 42(1), 111943.

Maltan L, et al. (2023) Photocrosslinking-induced CRAC channel-like Orai1 activation independent of STIM1. *Nature communications*, 14(1), 1286.

Quarato G, et al. (2022) Ca²⁺-mediated mitochondrial inner membrane permeabilization induces cell death independently of Bax and Bak. *Cell death and differentiation*, 29(7), 1318.

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.

Xin Y, et al. (2021) Regulation of cell quiescence-proliferation balance by Ca²⁺-CaMKK-Akt signaling. *Journal of cell science*, 134(20).

Casellas-D??az S, et al. (2021) Mfn2 localization in the ER is necessary for its bioenergetic function and neuritic development. *EMBO reports*, 22(9), e51954.

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.

Carpio MA, et al. (2021) BOK controls apoptosis by Ca²⁺ transfer through ER-mitochondrial contact sites. *Cell reports*, 34(10), 108827.

Martens MD, et al. (2020) Misoprostol attenuates neonatal cardiomyocyte proliferation through Bnip3, perinuclear calcium signaling, and inhibition of glycolysis. *Journal of molecular and cellular cardiology*, 146, 19.

Giovinazzo JA, et al. (2020) Apolipoprotein L-1 renal risk variants form active channels at the plasma membrane driving cytotoxicity. *eLife*, 9.

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.