Resource Summary Report

Generated by RRID on Aug 19, 2026

pcDNA3-Drp1K38A

RRID:Addgene_45161
Type: Plasmid

Proper Citation

RRID:Addgene_45161

Plasmid Information

URL: http://www.addgene.org/45161

Proper Citation: RRID:Addgene_45161

Insert Name: Drp1

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Defining Citation: PMID:9786947

Vector Backbone Description: Backbone Marker:Clontech; Backbone Size:5446; Vector Backbone:pcDNA3; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: The role of dynamin-related protein 1, a mediator of mitochondrial fission, in apoptosis. Frank S, Gaume B, Bergmann-Leitner ES, Leitner WW, Robert EG, Catez F, Smith CL, Youle RJ In Dev Cell. 2001 Oct;1(4):515-25.

Plasmid Name: pcDNA3-Drp1K38A

Relevant Mutation: K38A

Record Creation Time: 20220422T222233+0000

Record Last Update: 20260815T081522+0000

Ratings and Alerts

No rating or validation information has been found for pcDNA3-Drp1K38A.

No alerts have been found for pcDNA3-Drp1K38A.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 8 mentions in open access literature.

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

Simpson CL, et al. (2021) NIX initiates mitochondrial fragmentation via DRP1 to drive epidermal differentiation. Cell reports, 34(5), 108689.

Lovy A, et al. (2020) Concerted Action of AMPK and Sirtuin-1 Induces Mitochondrial Fragmentation Upon Inhibition of Ca2+ Transfer to Mitochondria. Frontiers in cell and developmental biology, 8, 378.

Arribat Y, et al. (2019) Mitochondria in Embryogenesis: An Organellogenesis Perspective. Frontiers in cell and developmental biology, 7, 282.

Kamerkar SC, et al. (2018) Dynamin-related protein 1 has membrane constricting and severing abilities sufficient for mitochondrial and peroxisomal fission. Nature communications, 9(1), 5239.

Chowdhury SR, et al. (2017) Chlamydia preserves the mitochondrial network necessary for replication via microRNA-dependent inhibition of fission. The Journal of cell biology, 216(4), 1071.

Luchsinger LL, et al. (2016) Mitofusin 2 maintains haematopoietic stem cells with extensive lymphoid potential. Nature, 529(7587), 528.

Wang J, et al. (2016) Nestin regulates proliferation and invasion of gastrointestinal stromal tumor cells by altering mitochondrial dynamics. Oncogene, 35(24), 3139.

Cai J, et al. (2016) ERK/Drp1-dependent mitochondrial fission is involved in the MSC-induced drug resistance of T-cell acute lymphoblastic leukemia cells. Cell death & disease, 7(11), e2459.