

Resource Summary Report

Generated by [NIF](#) on Sep 20, 2026

pcDNA-f:PGC1

RRID:Addgene_1026

Type: Plasmid

Proper Citation

RRID:Addgene_1026

Plasmid Information

URL: <http://www.addgene.org/1026>

Proper Citation: RRID:Addgene_1026

Insert Name: PPAR gamma coactivator 1 alpha

Organism: Mus musculus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:10983978](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Backbone Size:5500; Vector Backbone:pcDNA3.1 myc-His A; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Plasmid Name: pcDNA-f:PGC1

Record Creation Time: 20220422T221456+0000

Record Last Update: 20260919T090406+0000

Ratings and Alerts

No rating or validation information has been found for pcDNA-f:PGC1.

No alerts have been found for pcDNA-f:PGC1.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Gan L, et al. (2025) Adipocyte-derived small extracellular vesicles exacerbate diabetic ischemic heart injury by promoting oxidative stress and mitochondrial-mediated cardiomyocyte apoptosis. *Redox biology*, 79, 103443.

Dhara A, et al. (2022) PGC1 alpha coactivates ERG fusion to drive antioxidant target genes under metabolic stress. *Communications biology*, 5(1), 416.

Hou Y, et al. (2022) Epithelial SMYD5 Exaggerates IBD by Down-regulating Mitochondrial Functions via Post-Translational Control of PGC-1? Stability. *Cellular and molecular gastroenterology and hepatology*, 14(2), 375.

Habtemichael EN, et al. (2021) Insulin-stimulated endoproteolytic TUG cleavage links energy expenditure with glucose uptake. *Nature metabolism*, 3(3), 378.

Scharping NE, et al. (2021) Mitochondrial stress induced by continuous stimulation under hypoxia rapidly drives T cell exhaustion. *Nature immunology*, 22(2), 205.

Pérez-Schindler J, et al. (2021) RNA-bound PGC-1? controls gene expression in liquid-like nuclear condensates. *Proceedings of the National Academy of Sciences of the United States of America*, 118(36).

Li Y, et al. (2020) NIK links inflammation to hepatic steatosis by suppressing PPAR? in alcoholic liver disease. *Theranostics*, 10(8), 3579.

Mu X, et al. (2017) IGF-II-mediated downregulation of peroxisome proliferator-activated receptor-? coactivator-1? in myoblast cells involves PI3K/Akt/FoxO1 signaling pathway. *Molecular and cellular biochemistry*, 432(1-2), 199.

Kang H, et al. (2017) Activation of the ATF2/CREB-PGC-1? pathway by metformin leads to dopaminergic neuroprotection. *Oncotarget*, 8(30), 48603.

Gao J, et al. (2015) CAR Suppresses Hepatic Gluconeogenesis by Facilitating the Ubiquitination and Degradation of PGC1?. *Molecular endocrinology (Baltimore, Md.)*, 29(11), 1558.

Gali Ramamoorthy T, et al. (2015) The transcriptional coregulator PGC-1? controls mitochondrial function and anti-oxidant defence in skeletal muscles. *Nature communications*, 6, 10210.

Lucas EK, et al. (2014) PGC-1? provides a transcriptional framework for synchronous neurotransmitter release from parvalbumin-positive interneurons. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 34(43), 14375.

Traboulsi H, et al. (2014) Dynamic partnership between TFIIH, PGC-1? and SIRT1 is impaired in trichothiodystrophy. *PLoS genetics*, 10(10), e1004732.

Buler M, et al. (2014) SIRT5 is under the control of PGC-1? and AMPK and is involved in regulation of mitochondrial energy metabolism. *FASEB journal : official publication of the*

Federation of American Societies for Experimental Biology, 28(7), 3225.

Antico Arciuch VG, et al. (2013) Inhibition of AMPK and Krebs cycle gene expression drives metabolic remodeling of Pten-deficient preneoplastic thyroid cells. *Cancer research*, 73(17), 5459.

Klimcakova E, et al. (2012) PGC-1 α promotes the growth of ErbB2/Neu-induced mammary tumors by regulating nutrient supply. *Cancer research*, 72(6), 1538.

Alvarez-Guardia D, et al. (2010) The p65 subunit of NF-kappaB binds to PGC-1alpha, linking inflammation and metabolic disturbances in cardiac cells. *Cardiovascular research*, 87(3), 449.

Roth RJ, et al. (2009) MAPK phosphatase-1 facilitates the loss of oxidative myofibers associated with obesity in mice. *The Journal of clinical investigation*, 119(12), 3817.