

Resource Summary Report

Generated by T1D on Sep 17, 2026

C57BL/6NJ-Acod1^{em1(IMPC)}J/J

RRID:IMSR_JAX:029340

Type: Organism

Proper Citation

RRID:IMSR_JAX:029340

Organism Information

URL: <https://www.jax.org/strain/029340>

Proper Citation: RRID:IMSR_JAX:029340

Description: Mus musculus with name C57BL/6NJ-Acod1^{em1(IMPC)}J/J from IMSR.

Species: Mus musculus

Synonyms: C57BL/6NJ-Acod1/J. C57BL/6N-Acod1/J

Notes: gene symbol note: aconitate decarboxylase 1; coisogenic strain|mutant strain: Acod1

Affected Gene: aconitate decarboxylase 1

Genomic Alteration: endonuclease-mediated mutation 1; Jackson

Catalog Number: JAX:029340

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: C57BL/6NJ-Acod1^{em1(IMPC)}J/J

Record Creation Time: 20250513T053808+0000

Record Last Update: 20260912T060547+0000

Ratings and Alerts

No rating or validation information has been found for C57BL/6NJ-Acod1^{em1(IMPC)}J/J.

No alerts have been found for C57BL/6NJ-Acod1^{em1}(IMPC)J/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 17 mentions in open access literature.

Listed below are recent publications. The full list is available at [T1D](#).

Arumugam P, et al. (2026) Mitochondrial transfer to granulocytic myeloid-derived suppressor cells augments immunosuppressive activity. *Cell reports*, 45(3), 117057.

Ball AB, et al. (2025) Pro-inflammatory macrophage activation does not require inhibition of oxidative phosphorylation. *EMBO reports*, 26(4), 982.

Ball AB, et al. (2024) Pro-inflammatory macrophage activation does not require inhibition of mitochondrial respiration. *bioRxiv : the preprint server for biology*.

Kieler M, et al. (2024) Itaconate is a metabolic regulator of bone formation in homeostasis and arthritis. *Annals of the rheumatic diseases*, 83(11), 1465.

Ramalho T, et al. (2024) Itaconate impairs immune control of *Plasmodium* by enhancing mtDNA-mediated PD-L1 expression in monocyte-derived dendritic cells. *Cell metabolism*, 36(3), 484.

Shi W, et al. (2024) Lactic acid induces transcriptional repression of macrophage inflammatory response via histone acetylation. *Cell reports*, 43(2), 113746.

Schwab AD, et al. (2024) Aconitate decarboxylase 1 mediates the acute airway inflammatory response to environmental exposures. *Frontiers in immunology*, 15, 1432334.

Mateska I, et al. (2023) Succinate mediates inflammation-induced adrenocortical dysfunction. *eLife*, 12.

Tomlinson KL, et al. (2023) Ketogenesis promotes tolerance to *Pseudomonas aeruginosa* pulmonary infection. *Cell metabolism*, 35(10), 1767.

Zhao Y, et al. (2023) Neutrophils resist ferroptosis and promote breast cancer metastasis through aconitate decarboxylase 1. *Cell metabolism*, 35(10), 1688.

Wong Fok Lung T, et al. (2022) *Klebsiella pneumoniae* induces host metabolic stress that promotes tolerance to pulmonary infection. *Cell metabolism*, 34(5), 761.

Singh S, et al. (2021) Integrative metabolomics and transcriptomics identifies itaconate as an adjunct therapy to treat ocular bacterial infection. *Cell reports. Medicine*, 2(5), 100277.

Hsieh WY, et al. (2020) Toll-Like Receptors Induce Signal-Specific Reprogramming of the Macrophage Lipidome. *Cell metabolism*, 32(1), 128.

Riquelme SA, et al. (2020) *Pseudomonas aeruginosa* Utilizes Host-Derived Itaconate to Redirect Its Metabolism to Promote Biofilm Formation. *Cell metabolism*, 31(6), 1091.

Hoofman A, et al. (2020) The Immunomodulatory Metabolite Itaconate Modifies NLRP3 and Inhibits Inflammasome Activation. *Cell metabolism*, 32(3), 468.

Sun KA, et al. (2020) Endogenous itaconate is not required for particulate matter-induced NRF2 expression or inflammatory response. *eLife*, 9.

Daniels BP, et al. (2019) The Nucleotide Sensor ZBP1 and Kinase RIPK3 Induce the Enzyme IRG1 to Promote an Antiviral Metabolic State in Neurons. *Immunity*, 50(1), 64.