

Resource Summary Report

Generated by [SPARC SAWG](#) on Jul 28, 2026

B6.129-Ucp1^{tm1Kz/J}

RRID:IMSR_JAX:003124

Type: Organism

Proper Citation

RRID:IMSR_JAX:003124

Organism Information

URL: <https://www.jax.org/strain/003124>

Proper Citation: RRID:IMSR_JAX:003124

Description: Mus musculus with name B6.129-Ucp1^{tm1Kz/J} from IMSR.

Species: Mus musculus

Notes: gene symbol note: uncoupling protein 1 (mitochondrial; proton carrier); mutant strain|congenic strain: Ucp1

Affected Gene: uncoupling protein 1 (mitochondrial; proton carrier)

Genomic Alteration: targeted mutation 1; Leslie Kozak

Catalog Number: JAX:003124

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: B6.129-Ucp1^{tm1Kz/J}

Record Creation Time: 20250513T053637+0000

Record Last Update: 20260725T044346+0000

Ratings and Alerts

No rating or validation information has been found for B6.129-Ucp1^{tm1Kz/J}.

No alerts have been found for B6.129-Ucp1^{tm1Kz/J}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 23 mentions in open access literature.

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

Jaschke NP, et al. (2025) Gut-to-brain signaling restricts dietary protein intake during recovery from catabolic states. *Cell*, 188(26), 7481.

Rahbani JF, et al. (2024) Parallel control of cold-triggered adipocyte thermogenesis by UCP1 and CKB. *Cell metabolism*, 36(3), 526.

Inoue SI, et al. (2024) Short-term cold exposure induces persistent epigenomic memory in brown fat. *Cell metabolism*, 36(8), 1764.

Mattar P, et al. (2024) Insulin and leptin oscillations license food-entrained browning and metabolic flexibility. *Cell reports*, 43(7), 114390.

Choi KM, et al. (2023) Regulation of beige adipocyte thermogenesis by the cold-repressed ER protein NNAT. *Molecular metabolism*, 69, 101679.

Cone AL, et al. (2023) Kappa opioid receptor activation increases thermogenic energy expenditure which drives increased feeding. *iScience*, 26(7), 107241.

Adachi Y, et al. (2022) Beiging of perivascular adipose tissue regulates its inflammation and vascular remodeling. *Nature communications*, 13(1), 5117.

Kasza I, et al. (2022) Contrasting recruitment of skin-associated adipose depots during cold challenge of mouse and human. *The Journal of physiology*, 600(4), 847.

Karlina R, et al. (2021) Identification and characterization of distinct brown adipocyte subtypes in C57BL/6J mice. *Life science alliance*, 4(1).

Gallardo-Montejano VI, et al. (2021) Perilipin 5 links mitochondrial uncoupled respiration in brown fat to healthy white fat remodeling and systemic glucose tolerance. *Nature communications*, 12(1), 3320.

Spiljar M, et al. (2021) Cold exposure protects from neuroinflammation through immunologic reprogramming. *Cell metabolism*, 33(11), 2231.

Paulo E, et al. (2021) Brown adipocyte ATF4 activation improves thermoregulation and systemic metabolism. *Cell reports*, 36(12), 109742.

Qing H, et al. (2020) Origin and Function of Stress-Induced IL-6 in Murine Models. *Cell*, 182(2), 372.

Bertholet AM, et al. (2019) H⁺ transport is an integral function of the mitochondrial ADP/ATP carrier. *Nature*, 571(7766), 515.

Kong X, et al. (2018) Brown Adipose Tissue Controls Skeletal Muscle Function via the Secretion of Myostatin. *Cell metabolism*, 28(4), 631.

Hagberg CE, et al. (2018) Flow Cytometry of Mouse and Human Adipocytes for the Analysis of Browning and Cellular Heterogeneity. *Cell reports*, 24(10), 2746.

Emmett MJ, et al. (2017) Histone deacetylase 3 prepares brown adipose tissue for acute thermogenic challenge. *Nature*, 546(7659), 544.

Schreiber R, et al. (2017) Cold-Induced Thermogenesis Depends on ATGL-Mediated Lipolysis in Cardiac Muscle, but Not Brown Adipose Tissue. *Cell metabolism*, 26(5), 753.

Bertholet AM, et al. (2017) Mitochondrial Patch Clamp of Beige Adipocytes Reveals UCP1-Positive and UCP1-Negative Cells Both Exhibiting Futile Creatine Cycling. *Cell metabolism*, 25(4), 811.

Keipert S, et al. (2017) Long-Term Cold Adaptation Does Not Require FGF21 or UCP1. *Cell metabolism*, 26(2), 437.