Resource Summary Report

Generated by T1D on Sep 20, 2026

STOCK Prkaa1$^{tm1.1Sjm}$/J

RRID:IMSR_JAX:014141
Type: Organism

Proper Citation

RRID:IMSR_JAX:014141

Organism Information

URL: https://www.jax.org/strain/014141

Proper Citation: RRID:IMSR_JAX:014141

Description: Mus musculus with name STOCK Prkaa1$^{tm1.1Sjm}$/J from IMSR.

Species: Mus musculus

Synonyms: C57BL/6-AMPKa1. C57BL/6-Prkaa1/J. B6.Cg-Prkaa1/J. B6(Cg)-Prkaa1/J

Notes: gene symbol note: protein kinase; AMP-activated; alpha 1 catalytic subunit; mutant stock: Prkaa1

Affected Gene: protein kinase; AMP-activated; alpha 1 catalytic subunit

Genomic Alteration: targeted mutation 1.1; Sean J Morrison

Catalog Number: JAX:014141

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: STOCK Prkaa1$^{tm1.1Sjm}$/J

Record Creation Time: 20250513T053727+0000

Record Last Update: 20260919T054914+0000

Ratings and Alerts

No rating or validation information has been found for STOCK Prkaa1$^{tm1.1Sjm}$/J.

No alerts have been found for STOCK Prkaa1$^{tm1.1Sjm}$/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 14 mentions in open access literature.

Listed below are recent publications. The full list is available at T1D .

Mao Y, et al. (2026) AMPK?2 signals amino acid insufficiency to inhibit protein synthesis. Cell metabolism, 38(1), 192.

Hold LA, et al. (2025) AMP-activated protein kinase (AMPK) is essential for tendon homeostasis and prevents premature senescence and ectopic calcification. bioRxiv : the preprint server for biology.

Qu Q, et al. (2024) Lithocholic acid phenocopies anti-ageing effects of calorie restriction. Nature.

Qu Q, et al. (2024) Lithocholic acid binds TULP3 to activate sirtuins and AMPK to slow down ageing. Nature.

Aguiar CF, et al. (2023) Tissue-specific metabolic profile drives iNKT cell function during obesity and liver injury. Cell reports, 42(1), 112035.

Xu H, et al. (2022) Glucagon changes substrate preference in gluconeogenesis. The Journal of biological chemistry, 298(12), 102708.

Son JS, et al. (2022) Maternal exercise intergenerationally drives muscle-based thermogenesis via activation of apelin-AMPK signaling. EBioMedicine, 76, 103842.

An J, et al. (2022) AMP-activated protein kinase alpha1 promotes tumor development via FOXP3 elevation in tumor-infiltrating Treg cells. iScience, 25(1), 103570.

Cotton JL, et al. (2022) PTEN and LKB1 are differentially required in Gli1-expressing mesenchymal cells to suppress gastrointestinal polyposis. Cell reports, 40(3), 111125.

Miao ZF, et al. (2020) A Metformin-Responsive Metabolic Pathway Controls Distinct Steps in Gastric Progenitor Fate Decisions and Maturation. Cell stem cell, 26(6), 910.

Timilshina M, et al. (2019) Activation of Mevalonate Pathway via LKB1 Is Essential for Stability of Treg Cells. Cell reports, 27(10), 2948.

Seoane-Collazo P, et al. (2018) SF1-Specific AMPK?1 Deletion Protects Against Diet-Induced Obesity. Diabetes, 67(11), 2213.

Cokorinos EC, et al. (2017) Activation of Skeletal Muscle AMPK Promotes Glucose Disposal and Glucose Lowering in Non-human Primates and Mice. Cell metabolism, 25(5), 1147.

Martínez-Sánchez N, et al. (2017) Hypothalamic AMPK-ER Stress-JNK1 Axis Mediates the Central Actions of Thyroid Hormones on Energy Balance. Cell metabolism, 26(1), 212.