Resource Summary Report

Generated by SPARC SAWG on Aug 14, 2026

C57BL/6-Arg1^{tm1Pmu}/J

RRID:IMSR_JAX:008817
Type: Organism

Proper Citation

RRID:IMSR_JAX:008817

Organism Information

URL: https://www.jax.org/strain/008817

Proper Citation: RRID:IMSR_JAX:008817

Description: Mus musculus with name C57BL/6-Arg1^{tm1Pmu}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: arginase; liver; coisogenic strain: Arg1

Affected Gene: arginase; liver

Genomic Alteration: targeted mutation 1; Peter J Murray

Catalog Number: JAX:008817

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: C57BL/6-Arg1^{tm1Pmu}/J

Record Creation Time: 20250513T053711+0000

Record Last Update: 20260808T050916+0000

Ratings and Alerts

No rating or validation information has been found for C57BL/6-Arg1^{tm1Pmu}/J.

No alerts have been found for C57BL/6-Arg1^{tm1Pmu}/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Gogiraju R, et al. (2026) Loss of erythrocyte arginase-1 impairs vasorelaxation due to endothelial GSNOR overexpression and denitrosylation of G protein subunits. Redox biology, 94, 104201.

Braun LM, et al. (2025) Adiponectin reduces immune checkpoint inhibitor-induced inflammation without blocking anti-tumor immunity. Cancer cell, 43(2), 269.

Chennupati R, et al. (2023) Chronic anemia is associated with systemic endothelial dysfunction. Frontiers in cardiovascular medicine, 10, 1099069.

West EE, et al. (2023) Loss of CD4+ T cell-intrinsic arginase 1 accelerates Th1 response kinetics and reduces lung pathology during influenza infection. Immunity, 56(9), 2036.

Zhang H, et al. (2022) Annexin A2/TLR2/MYD88 pathway induces arginase 1 expression in tumor-associated neutrophils. The Journal of clinical investigation, 132(22).

Ramji K, et al. (2022) Targeting arginase-1 exerts antitumor effects in multiple myeloma and mitigates bortezomib-induced cardiotoxicity. Scientific reports, 12(1), 19660.

Ma C, et al. (2021) Myeloid Arginase 1 Insufficiency Exacerbates Amyloid-? Associated Neurodegenerative Pathways and Glial Signatures in a Mouse Model of Alzheimer's Disease: A Targeted Transcriptome Analysis. Frontiers in immunology, 12, 628156.

Richmond CR, et al. (2021) Arginase-1 deficiency in neural cells does not contribute to neurodevelopment or functional outcomes after sciatic nerve injury. Neurochemistry international, 145, 104984.

Sosnowska A, et al. (2021) Inhibition of arginase modulates T-cell response in the tumor microenvironment of lung carcinoma. Oncoimmunology, 10(1), 1956143.

Ahrends T, et al. (2021) Enteric pathogens induce tissue tolerance and prevent neuronal loss from subsequent infections. Cell, 184(23), 5715.

Ma C, et al. (2020) Arginase 1 Insufficiency Precipitates Amyloid-? Deposition and Hastens Behavioral Impairment in a Mouse Model of Amyloidosis. Frontiers in immunology, 11, 582998.

Yurdagul A, et al. (2020) Macrophage Metabolism of Apoptotic Cell-Derived Arginine Promotes Continual Efferocytosis and Resolution of Injury. Cell metabolism, 31(3), 518.

Sin YY, et al. (2018) Transplantation of Gene-Edited Hepatocyte-like Cells Modestly Improves Survival of Arginase-1-Deficient Mice. Molecular therapy. Nucleic acids, 10, 122.

Lange SM, et al. (2017) l-Citrulline Metabolism in Mice Augments CD4+ T Cell Proliferation and Cytokine Production In Vitro, and Accumulation in the Mycobacteria-Infected Lung. Frontiers in immunology, 8, 1561.

Sin YY, et al. (2017) Proof-of-Concept Gene Editing for the Murine Model of Inducible Arginase-1 Deficiency. Scientific reports, 7(1), 2585.

Mondanelli G, et al. (2017) A Relay Pathway between Arginine and Tryptophan Metabolism Confers Immunosuppressive Properties on Dendritic Cells. Immunity, 46(2), 233.

Ballantyne LL, et al. (2016) Liver-specific knockout of arginase-1 leads to a profound phenotype similar to inducible whole body arginase-1 deficiency. Molecular genetics and metabolism reports, 9, 54.

Sin YY, et al. (2013) Inducible arginase 1 deficiency in mice leads to hyperargininemia and altered amino acid metabolism. PloS one, 8(11), e80001.