

Resource Summary Report

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NOD/ShiLtJ

RRID:IMSR_JAX:001976

Type: Organism

Proper Citation

RRID:IMSR_JAX:001976

Organism Information

URL: <https://www.jax.org/strain/001976>

Proper Citation: RRID:IMSR_JAX:001976

Description: Mus musculus with name NOD/ShiLtJ from IMSR.

Species: Mus musculus

Synonyms: Non-obese Diabetic. NOD/LtJ

Notes: gene symbol note: cytochrome c oxidase subunit 7A2 like|deletion; Chr 3; Edward H Leiter 3|hemolytic complement|mitochondrially encoded tRNA arginine|G protein-coupled receptor 84|deletion; Chr 3; Edward H Leiter 1|interleukin 2|deletion; Chr 1; Edward H Leiter 2|histocompatibility-2; MHC|cadherin related 23 (otocadherin); inbred strain: Cox7a2|Del(3)3Lt|Hc|mt-Tr|Gpr84|Del(3)1Lt|Il2|Del(1)2Lt|H2|Cdh23

Affected Gene: cytochrome c oxidase subunit 7A2 like|deletion; Chr 3; Edward H Leiter 3|hemolytic complement|mitochondrially encoded tRNA arginine|G protein-coupled receptor 84|deletion; Chr 3; Edward H Leiter 1|interleukin 2|deletion; Chr 1; Edward H Leiter 2|histocompatibility-2; MHC|cadherin related 23 (otocadherin)

Genomic Alteration: long|deletion; Chr 3; Edward H Leiter 3|deficient|mutation 1|deletion|deletion; Chr 3; Edward H Leiter 1|deletion; Chr 1; Edward H Leiter 2|g7 variant|age related hearing loss 1

Catalog Number: JAX:001976

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: NOD/ShiLtJ

Record Creation Time: 20250513T053628+0000

Record Last Update: 20260725T044336+0000

Ratings and Alerts

- Used for targeted mutation by the Human Islet Research Network community.
Contact(s): [Raghavendra Mirmira](#), [Sarah Tersey](#) - Human Islets Research Network
<https://hirnetwork.org/>

No alerts have been found for NOD/ShiLtJ.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 540 mentions in open access literature.

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

Srivastava N, et al. (2026) A microenvironment-driven HLA-II-associated insulin neoantigen elicits persistent memory T cell activation in diabetes. Nature immunology, 27(1), 82.

Xie L, et al. (2026) Galectin-3 exacerbates autoimmune diabetes by limiting regulatory T cell differentiation and function. Science advances, 12(1), eadz7916.

Gudi RR, et al. (2026) Human Gut Commensal Bacteroides fragilis Suppresses Mucin Production and Alters Microbiota Composition Resulting in Accelerated Type 1 Diabetes in Mice. Immunology, 177(1), 119.

Fletcher JD, et al. (2026) NMR and proteomic analysis of Cornus officinalis extract reveals abundance of 5-hydroxymethylfurfural and induced expression of Nrf2 and superoxide dismutase-2 in 1.1B4 human pancreatic β -cells and murine islets. Molecular and cellular endocrinology, 611, 112675.

Brown ME, et al. (2025) Inhibition of CD226 co-stimulation suppresses diabetes development in the NOD mouse by augmenting regulatory T cells and diminishing effector T cell function. Diabetologia, 68(2), 397.

Wang CM, et al. (2025) Supplementation with active vitamin D3 ameliorates experimental autoimmune thyroiditis in mice by modulating the differentiation and functionality of intrathyroidal T-cell subsets. Frontiers in immunology, 16, 1528707.

Islam MZ, et al. (2025) Single-cell RNA-seq reveals disease-specific CD8⁺ T cell clonal expansion and a high frequency of transcriptionally distinct double-negative T cells in diabetic NOD mice. *PloS one*, 20(3), e0317987.

Nowak EC, et al. (2025) The role of VISTA engagement in limiting neutrophil-mediated inflammation. *Journal of immunology* (Baltimore, Md. : 1950), 214(9), 2385.

Garretson A, et al. (2025) Benchmarking Genomic Variant Calling Tools in Inbred Mouse Strains: Recommendations and Considerations. *bioRxiv : the preprint server for biology*.

Pipella J, et al. (2025) Autoreactive T Cells and Cytokine Stress Drive β -Cell Senescence Entry and Accumulation in Type 1 Diabetes. *Diabetes*, 74(9), 1562.

Choe J, et al. (2025) ST8Sia6 overexpression protects pancreatic β cells from spontaneous autoimmune diabetes in nonobese diabetic mice. *The Journal of clinical investigation*, 135(15).

Murray KE, et al. (2025) Sex and Genotype Affect Mouse Hippocampal Gene Expression in Response to Blast-Induced Traumatic Brain Injury. *Molecular neurobiology*, 62(8), 9980.

Gan Y, et al. (2025) Pharmacological Mechanisms of CheReCunJin Formula in Ameliorating Sjögren's Syndrome: Suppression of IL-17 Signal-Mediated Inflammatory Cascade. *Journal of inflammation research*, 18, 17289.

Li S, et al. (2025) Autoimmune thyroiditis promotes breast cancer progression: exploratory role of thyroid hormone receptor beta signaling disruption. *Breast cancer research : BCR*, 27(1), 225.

Tao X, et al. (2025) Engineered nanozyme immunomodulator for xerostomia treatment via regulating submandibular salivary gland. *Materials today. Bio*, 35, 102555.

Elias-Oliveira J, et al. (2025) *Lactococcus lactis*-HSP65 requires TLR2 to induce tolerogenic dendritic cells and confer protection against type 1 diabetes in a murine model. *Cellular and molecular life sciences : CMLS*, 82(1), 435.

Oestereicher MA, et al. (2025) Establishing standardized transthoracic echocardiography reference ranges for mouse models: insights into the impact of anesthesia, sex, and age. *Frontiers in cardiovascular medicine*, 12, 1695034.

Garnica J, et al. (2025) BLIMP-1-dependent differentiation of T follicular helper cells into Foxp3⁺ T regulatory type 1 cells. *Frontiers in immunology*, 16, 1519780.

Janssen LMF, et al. (2025) Crystalline silica exposure induces multiple systemic autoimmune phenotypes including inflammatory arthritis and nephritis in Collaborative Cross mice with differing sub-clinical autoimmune profiles. *bioRxiv : the preprint server for biology*.

Dai YD, et al. (2025) Identification of conserved T cell epitopes and flanking amino acid mutants of endogenous retrovirus Gag antigen in nonobese diabetic mice. *ImmunoHorizons*, 9(9).