

Resource Summary Report

Generated by [RRID](#) on Jul 29, 2026

NOD.Cg-Tg(TcraBDC2.5.TcrbBDC2.5)1Doi/DoiJ

RRID:IMSR_JAX:004460

Type: Organism

Proper Citation

RRID:IMSR_JAX:004460

Organism Information

URL: <https://www.jax.org/strain/004460>

Proper Citation: RRID:IMSR_JAX:004460

Description: Mus musculus with name NOD.Cg-Tg(TcraBDC2.5.TcrbBDC2.5)1Doi/DoiJ from IMSR.

Species: Mus musculus

Synonyms: NOD.Cg-Tg(TcraBDC2.5)1Doi Tg(TcrbBDC2.5)2Doi Rag1/DoiJ.
BDC2.5/Rag. NOD.Cg-Tg(TcraBDC2.5)1Doi Tg(TcrbBDC2.5)2Doi/DoiJ

Notes: gene symbol note: T cell receptor alpha chain|transgene insertion 1; Christophe Benoist|T cell receptor beta chain; mutant strain|congenic strain:
Tcra|Tg(TcraBDC2.5;TcrbBDC2.5)1Doi|Tcrb

Affected Gene: T cell receptor alpha chain|transgene insertion 1; Christophe Benoist|T cell receptor beta chain

Genomic Alteration: transgene insertion 1; Christophe Benoist

Catalog Number: JAX:004460

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: NOD.Cg-Tg(TcraBDC2.5.TcrbBDC2.5)1Doi/DoiJ

Record Creation Time: 20250513T053645+0000

Record Last Update: 20260725T044354+0000

Ratings and Alerts

No rating or validation information has been found for NOD.Cg-Tg(TcraBDC2.5.TcrbBDC2.5)1Doi/DoiJ.

No alerts have been found for NOD.Cg-Tg(TcraBDC2.5.TcrbBDC2.5)1Doi/DoiJ.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 11 mentions in open access literature.

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

Loaiza Naranjo JD, et al. (2025) PD-1 expressing islet-specific CD4+ T cells promote bystander tolerance and prevent autoimmunity. *Immunology and cell biology*, 103(7), 738.

Alvarez F, et al. (2024) The IL-2 SYNTHORIN molecule promotes functionally adapted Tregs in a preclinical model of type 1 diabetes. *JCI insight*, 9(24).

Mitchell JS, et al. (2024) CD4+ T cells reactive to a hybrid peptide from insulin-chromogranin A adopt a distinct effector fate and are pathogenic in autoimmune diabetes. *Immunity*, 57(10), 2399.

Funsten MC, et al. (2023) Microbiota-dependent proteolysis of gluten subverts diet-mediated protection against type 1 diabetes. *Cell host & microbe*, 31(2), 213.

Mandarano AH, et al. (2023) DRAK2 contributes to type 1 diabetes by negatively regulating IL-2 sensitivity to alter regulatory T cell development. *Cell reports*, 42(2), 112106.

Firdessa-Fite R, et al. (2021) Soluble Antigen Arrays Efficiently Deliver Peptides and Arrest Spontaneous Autoimmune Diabetes. *Diabetes*, 70(6), 1334.

Umeshappa CS, et al. (2021) Liver-specific T regulatory type-1 cells program local neutrophils to suppress hepatic autoimmunity via CRAMP. *Cell reports*, 34(13), 108919.

Ciecko AE, et al. (2019) Interleukin-27 Is Essential for Type 1 Diabetes Development and Sjögren Syndrome-like Inflammation. *Cell reports*, 29(10), 3073.

Carrero JA, et al. (2017) Resident macrophages of pancreatic islets have a seminal role in the initiation of autoimmune diabetes of NOD mice. *Proceedings of the National Academy of Sciences of the United States of America*, 114(48), E10418.

Wan X, et al. (2016) Class-switched anti-insulin antibodies originate from unconventional antigen presentation in multiple lymphoid sites. *The Journal of experimental medicine*,

213(6), 967.

Mohan JF, et al. (2013) Pathogenic CD4⁺ T cells recognizing an unstable peptide of insulin are directly recruited into islets bypassing local lymph nodes. *The Journal of experimental medicine*, 210(11), 2403.