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

Stock No: 004460 | BDC2.5 TCR

Congenic, Transgenic

Also Known As: NOD.BDC2.5, BDC2.5 TCR
These transgenic mice express the diabetogenic CD4+ T cell clone BDC-2.5 specific regulatory T cell receptor.

Donating Investigator
Christophe Bensist, Joslin Diabetes Center

Genetic Background | Generation
N11+pN5
(2017-08-03 00:00:00)

Tg(TcraBDC2.5,TcrbBDC2.5)1Doi

Allele Type
Transgenic (Inserted expressed sequence)

Diabetes and Obesity Research
Immunology, Inflammation and Autoimmunity Research

Starting at:
$231.00 Domestic price for female 4-week
Details

Detailed Description

These transgenic mice carry both rearranged TCR alpha and beta genes from the cytotoxic CD4+ T cell clone BDC-2.5. When paired with a homozygous Rag1<sup>tm1Mom</sup> mutation (such as in Stock No. 003729), recombination of endogenous TCR and Ig is prevented so that mature T cells in these mice express only the BDC2.5 TCR. On the NOD background, mice carrying the transgenes have a reduced incidence of diabetes relative to NOD/ShiLtJ controls (12% incidence at age 30 weeks). When coupled with the homozygous Rag1<sup>tm1Mom</sup> mutation, mice develop diabetes extremely early (mean age of 25 days). (Ketz et al 1993, Gonzalez et al 2001, Mombaerts et al 1992)

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(TcraBDC2.5,TcrbBDC2.5)1Doi

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Standard PCR: Tg(TcraBDC2.5)1Doi, Tg(TcrobBDC2.5)2Doi
MELT: Tg(TcraBDC2.5)1Doi, Tg(TcrobBDC2.5)2Doi
Genotyping resources and troubleshooting

Dietary Information
New Diet as of March 2015: Lab Diet® 5K0Q (6% fat)

Breeding Considerations
When maintaining a live colony, hemizygous mice are bred to wildtype siblings. Homozygous mice may not display delayed onset of diabetes.

Additional Breeding and Husbandry Support

Mating System
Noncarrier x Hemizygote

Appearance
albino
Related Genotype: Tyr<sup>c</sup>/Tyr<sup>c</sup>

albino, pink eyed
Related Genotype: A/A Tyr<sup>c</sup>/Tyr<sup>c</sup>

Citation
When using the BDC2.5 TCR mouse strain in a publication, please cite the originating article(s) and include JAX stock #004460 in your Materials and Methods section.

Facility Barrier Level Descriptions

Pricing & Availability
0–2 week average lead time for 10 or more mice with age range

Repository Live

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<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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Breeder Pair

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