Overview

Also Known As: NOD-TCRalpha-TG, 8.3-TCR-alpha/beta transgenic NOD, NY8.3-NOD, NOD.8.3, 8.3-NOD, NOD.Tcr NY8.3

NOD.Cg-Tg(TcraTcrbNY8.3)1Pesa/DvsJ, commonly called 8.3-NOD, express rearranged Tcra and Tcrb transgenes derived from the pancreatic beta cell-cytotoxic CD8$^+$ T cell clone NY8.3. Transgenic animals bearing both TCR transgenes offer a source of CTL...
precursors useful in examining the diversity of beta cell peptides recognized by the autoreactive CD8\(^+\) T lymphocytes contributing to the earliest phase of diabetes mellitus type 1 (IDDM) development.

**Donating Investigator**

Dr. David Serreze, The Jackson Laboratory

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**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>?+N1pN15</td>
<td>(2019-03-27 00:00:00)</td>
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</tbody>
</table>

**Tg(TcraTcrbNY8.3)1Pesa**

**Allele Type**

Transgenic (Inserted expressed sequence)

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**RESEARCH APPLICATIONS**

Immunology, Inflammation and Autoimmunity Research

Research Tools

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**BASE PRICE**

Starting at:

- $76.22 Domestic price for female
- $259.22 Domestic price for breeder pair
- $2,595.00 Domestic price Cryo Recovery

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**Details**

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**Detailed Description**

NOD.Cg-Tg(TcraTcrbNY8.3)1Pesa/DvsJ, commonly called 8.3-NOD, express rearranged Tcra and Tcrb transgenes derived from the pancreatic beta cell-cytotoxic CD8\(^+\) T cell clone NY8.3. CD4 CD8\(^+\) thymocytes and lymph derived T cells are skewed toward VB8.1/2\(^+\) expression when compared to wild type controls. Although, transgenic mice exhibit dramatically accelerated diabetes, the cumulative
diabetes incidence and kinetics of disease are remarkably similar to their wild type cohorts. Insulitis scores of 3 week old transgene
mice was significantly lower, while insulitis scores of 6 week olds were significantly more severe than in wild types controls.

Transgenic animals bearing both TCR transgenes offer a source of CTL precursors useful in examining the diversity of beta cell
peptides recognized by the autoreactive CD8+ T lymphocytes contributing to the earliest phase of IDDM development.

FACS analysis, utilizing V 8.1,2,3 FITC antibody costaining with CD8a PE, is used to identify mice carrying this transgene.

Genotyping Protocols
Genotyping resources and troubleshooting
FACS analysis, utilizing V 8.1,2,3 FITC antibody costaining with CD8a PE, is used to identify mice carrying this transgene.
Breeding Considerations

FACS analysis, utilizing V 8.1.2.3 FITC antibody costaining with CD8a PE, is used to identify mice carrying this transgene.

The accelerated diabetes development in NOD.Cg-Tg(TcraTcrbNY8.3)1Pesa/DvsJ hemizygous breeding stock is not significantly retarded by Complete Freund's Adjuvant (CFA).

When maintaining a live colony, hemizygous males are mated to wildtype siblings or NOD/ShiLtJ (001976).

Mating System

+/+ sibling x Hemizygote

Appearance

pink-eyed, albino

Related Genotype: A/A Tyr<sup>c</sup>/Tyr<sup>c</sup>

Citation

When using the NOD-Tcr-NY8.3 mouse strain in a publication, please cite the originating article(s) and include JAX stock #005868 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

AX18 (Maximum)

Pricing & Availability

Live mice available in varying quantities. Call Customer Service for details.

Domestic

| Pricing effective for USA, Canada and Mexico shipping destinations |

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex</th>
<th>Genotype</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Hemizygous for Tg(TcraTcrbNY8.3)1Pesa</td>
<td>$183.00</td>
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<tr>
<td></td>
<td>Male</td>
<td>Hemizygous for Tg(TcraTcrbNY8.3)1Pesa</td>
<td>$183.00</td>
</tr>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Noncarrier</td>
<td>$76.22</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Noncarrier</td>
<td>$76.22</td>
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</tbody>
</table>

Breeder Pair

<table>
<thead>
<tr>
<th>Sex</th>
<th>Genotype</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Noncarrier</td>
<td>$259.22</td>
</tr>
<tr>
<td>Male</td>
<td>Hemizygous for Tg(TcraTcrbNY8.3)1Pesa</td>
<td></td>
</tr>
</tbody>
</table>
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

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Licensing Information
Phone: 207-288-6470
Email: TechTran@jax.org

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**Related Strains**

- All
- By Allele
- By Gene
- By Collection

All Related Strains