B6. Ctg-\textsuperscript{y\#1}Tg(\textit{Tcra} CWM5, \textit{Tcrb} CWM5)1807Wuth/J

Stock No: 014550

Congenic, Transgenic

CRYO RECOVERY

PLACE ORDER

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
Overview

These Bd 1807 TCR transgenic mice feature a CD4+ T cell repertoire that are reactive to several types of dimorphic fungi that cause major systemic mycoses found in North America.

Donating Investigator

Bruce Klein, University of Wisconsin

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Thy1a</td>
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</table>

**Thy1a**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Thy1</td>
<td>thymus cell antigen 1, theta</td>
</tr>
</tbody>
</table>

**Tg(TcraCWM5,TcrbCWM5)1807Wuth**

| Allele Type      | Transgenic (Inserted expressed sequence) |

RESEARCH APPLICATIONS

- Immunology, Inflammation and Autoimmunity Research
- Research Tools
- Internal/Organ Research
- Cancer Research
- Cell Biology Research
- Mouse/Human Gene Homologs
- Developmental Biology Research

BASE PRICE

Starting at: $2,854.50 Domestic price Cryo Recovery
Important Note
The donating investigator reports that, in their colony (October 2011), some Bd 1807 transgenic mice develop a lymphoproliferative disorder ("lymphoproliferative cancer"); estimating that lymphoproliferative disorder penetrance is 30% or less by four months and 50% or less by six months (noting that these are very conservative estimates; the percentage of healthy mice could be higher). As such, the donating investigator recommends breeding mice between 2-4 months of age, and continuously breed young mice for experiments and maintenance of the colony.

Detailed Description
These Bd 1807 TCR transgenic mice feature a CD4⁺ T cell repertoire expressing a T cell receptor (TCR) specific for a protective, native epitope/shared antigen of Blastomyces dermatitidis and Histoplasma capsulatum. Bd 1807 T cells also respond to the related dimorphic fungi Coccidioides posadasii, Paracoccidioides lutzii, and Paracoccidioides brasiliensis. Bd 1807 T cells express a balanced Th1/Th17 profile.

On adoptive transfer of Bd 1807 cells into wildtype mice, subcutaneous vaccination with B. dermatitidis, H. capsulatum or C. posadasii yeast results in activation and expansion of Bd 1807 cells in the skin draining lymph nodes. Activated Bd 1807 cells migrate to the site of vaccination (the skin) where they differentiate into Th1 and Th17 cells. Upon subsequent lethal experimental challenge, Bd 1807 cells migrate to the lung and confer vaccine-induced resistance/protection against experimental pulmonary blastomycosis, histoplasmosis, and coccidiomycosis.

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These Bd 1807 TCR transgenic mice may be useful in studying cellular mechanisms of CD4⁺ T cell immunity, memory, and protection from the dimorphic fungi that cause the major systemic mycoses of North America, as well as prolonged duration of fungal antigen presentation and adoptive transfer studies of T cell priming at the respiratory mucosa.

These Bd 1807 TCR transgenic mice are further modified with the Thy1.1 allele (Thy1⁺), rather than the alternate allele present in C57BL/6 inbred mice (as well as C57BL/10, DBA/2, and BALB/c inbred mice). Thus, cell populations derived from these Bd 1807 TCR transgenic mice can be distinguished from syngeneic host and other mice with the alternate allele via flow cytometry. The presence of Thy1⁺ serves as a marker for tracking donor CD4⁺ T cells in vitro.
Genotyping Protocols
Separated PCR: Tg(TcraCWM5,TcrbCWM5)1807Wuth
Separated PCR: Tg(TcrbCWM5)1807Wuth

Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, young males homozygous for the Thy1.1 allele (Thy1<sup>a</sup>) and hemizygous for the Bd 1807 transgene are bred with female B6.PL-Thy1<sup>a</sup>/CyJ mice (Stock No. 000406).

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Additional Breeding and Husbandry Support

Citation
When using the B6.Cg-Thy1<sup>a</sup>Tg(TcraCWM5,TcrbCWM5)1807Wuth/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #014550 in your Materials and Methods section.

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Domestic/Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous or Non carrier for Tg(TcraCWM5,TcrbCWM5)1807Wuth/J</td>
<td>$2,854.50</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.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

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**Related Strains**

- All
- By Allele
- By Gene
- By Collection

All Related Strains