

## BXD73b/RwwJ

Stock No: **007146**

 Recombinant Inbred (RI)

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The BXD#/Rww recombinant inbred (RI) strains originate from crosses between C57BL/6J (000664) females and DBA/2J (000671) males and were generated using a strategy of advanced intercrosses (AI). They may be used to study the genetics of behavioral phenotypes (including alcohol and drug addiction, stress, and locomotor activity) and complex or potentially complex physiologic phenotypes (including differences in organ weight and bone mineral density).

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## GENETIC OVERVIEW

Genetic Background

Generation

F17+26

(2020-04-29 00:00:00)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

VIEW ALL RESEARCH APPLICATIONS

### Details

#### Detailed Description

The BXD recombinant inbred (RI) strains are used to study the genetics of behavioral phenotypes including alcohol and drug

addiction, stress, and locomotor activity. The BXD set of RI strains also are used in the genetic analysis of numerous complex or potentially complex physiologic phenotypes including differences in organ weight and bone mineral density.

The BXD#/Rww set was generated using a strategy of advanced intercrosses (AI). The AI technique produces recombinant RI strains which incorporate approximately twice as many recombinations as the standard RI strains. The addition of the AI BXD RI lines to the existing BXD set creates the largest of the mouse RI mapping panels. This set is useful in QTL mapping and analysis of gene function.

The strain distribution pattern (SDP) for the BXD RI strains is available through the Mouse Genome Informatics

[Contributed Data Sets](#) and [Gene Network](#).

Additional tools and information are presented through the Mouse Phenome Database

[Specialized Strain Panel Query Form](#), and

[Gene Network](#) .

A 27 SNP (single nucleotide polymorphism) panel analysis, with 27 markers covering all 19 chromosomes and the X chromosome, was performed on the rederived living colony after five generations of inbreeding at The Jackson Laboratory Repository. This identified one marker on chromosome 1 (~89 Mbp) that was not fixed for C57BL/6J allele-type (e.g.: still segregating for DBA/2J allele-type markers).

*Through high density MUGA (Mouse Universal Genotyping Array) analysis performed in 2011 and Affymetrix screening in 2008, it has been determined that some BXD recombinant inbred strains are the same or nearly the same genetically. BXD73/RwwJ (Stock No. 007117), BXD80/RwwJ (Stock No. 007124) and BXD103/RwwJ were found to be highly similar in their overall genomes, but with particular chromosomes differing between them. We have renamed two of these sister strains to reflect the genetic similarity. BXD73/RwwJ is designated the primary strain, and the name will not be changed. BXD80/RwwJ is now designated BXD73a/RwwJ and BXD103/RwwJ is now designated BXD73b/RwwJ. In general, the "sister" strains (the ones with a suffix) should not be used for primary screening/QTL mapping. However, if a QTL is located in a region of difference in a sister recombinant inbred then this strain can serve as a "near congenic" for additional analysis. For additional information see [GeneNetwork](#) .*

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[+ Development](#)

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[+ Control Suggestions](#)

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[+ Selected References](#)

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[- Genetics](#)

Currently there are no related genes or alleles for this strain.

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## ⊖ Disease/Phenotype

[+ Disease Terms](#)

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[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ Phenotype Information](#)

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[+ References](#)

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## ⊖ Technical Support

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

[Genotyping resources and troubleshooting](#)

### Dietary Information

LabDiet® 5K52 formulation (6% fat)

### Mating System

Sibling x Sibling

### Appearance

dilute brown

Related Genotype: *a/a Tyrp1<sup>b</sup> / Tyrp1<sup>b</sup> Myo5a<sup>d</sup> / Myo5a<sup>d</sup>*

### Citation

When using the BXD73b/RwwJ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #007146 in your Materials and Methods section.

### Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX10 \(Standard\)](#)

# STRAIN INTEREST REGISTRATION

Please fill out the form below to indicate your interest in purchasing this JAX®Mice strain. This information helps us manage the colony build and better meet the broad needs of the research community.

Please send any technical questions to [Technical Support](#).

## CONTACT INFORMATION

First Name

Last Name

Institution

Phone Number

Email

## INTEREST

Please indicate your approximate levels of interest. You can add another line by selecting "Add More Interest".

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Frequency

Product

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Frequency...

Products...

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## ADDITIONAL USE RESTRICTIONS APPLY

Use of MICE by companies or for-profit entities requires a license prior to shipping.

## LICENSING INFORMATION

Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

### Related Strains

All

By Allele

By Gene

By Collection



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