The BXD set of RI strains is used in the genetic analysis of numerous complex or potentially complex physiologic phenotypes. The BXD2/TyJ strain develops spontaneous arthritis in 50% of females by 8 months of age and 90% of males greater than 12 months of age. Adult mice exhibit glomerulonephritis, proteinuria (by 6 months), splenomegaly, and autoantibody production. The BXD strains are derived from the C57BL/6J (Stock No. 000664) and DBA/2J (Stock No. 000671) progenitor strains.
Details

Detailed Description

The BXD 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 is used in the genetic analysis of numerous complex or potentially complex physiologic phenotypes including differences in organ weight and bone mineral density.

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.

The BXD2/TyJ strain develops spontaneous arthritis in 50% of females by 8 months of age and 90% of males greater than 12 months of age. The progressive, age-related arthritis includes extensive synovial hyperplasia and marginal invasion of the metatarsophalangeal, forelimb and hindlimb joints. Adult mice exhibit glomerulonephritis, proteinuria (by 6 months), splenomegaly, and autoantibody production. (Mountz JD, et al., 2005)

Development

Selected References

Genetics

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

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype
Phenotype Information

Genotyping Protocols
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

Pups experience a high rate of Hydrocephalus. Hydrocephalus can be detected as early 14 - 15 days and up to 5 weeks. It is more common in males, but both have the problem. Mice from this colony are distributed at 5 or more weeks of age.

Additional Breeding and Husbandry Support
Mating System
Sibling x Sibling
Appearance
black
Related Genotype: a/a Tyrp1⁺/Tyrp1⁺ Myo5a⁺/Myo5a⁺

Citation
When using the BXD2/TyJ mouse strain in a publication, please cite the originating article(s) and include JAX stock #000075 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

Pricing & Availability

Available

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

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**Terms Of Use**

**General Terms and Conditions**

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

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Related Strains

- All
- By Allele
- By Gene
- By Collection