The Tlr4<sup>lps-2J</sup> mutation that occurred in the BXD29 RI strain is characterized by large nodular bilateral subcortical heterotopias with partial callosal agenesis, and exhibit a defect in rapid auditory processing.
RESEARCH APPLICATIONS

Research Tools
Neurobiology Research
Dermatology Research
Mouse/Human Gene Homologs

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 BXD RI strains is available through the Mouse Genome Informatics Recombinant Inbred Strain Distribution Patterns. This subline of BXD29/Ty is homozygous for the mutation defective lipopolysaccharide response 2 Jackson, which arose spontaneously in the parental strain. The non-mutant parental strain is available as stock number 010981.

In 2011, a spontaneous mutation, telencephalon midline malformation (tmm), was observed in the BXD29–Tlr4^{Δps-2J} /J strain (Rosen G et al, Cereb Cortex 2012 March 27). The mutation is 100% penetrant on this genetic background and is characterized by large nodular bilateral subcortical heterotopias with partial callosal agenesis. Mice perform similar to wild-type in tests for motor coordination (rotarod) and learning/memory (water maze), but exhibit a defect in rapid auditory processing.

Development

Control Suggestions

Selected References

Genetics
- **$Tlr4^{ps-2J}$**
- **Myo5ad**
- **trmm**

## Disease/Phenotype

### Disease Terms

### Research Areas By Phenotype

### Mammalian Phenotype Terms by Genotype

### Phenotype Information

### References

## Technical Support

### Genotyping Protocols
- Genotyping resources and troubleshooting

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

### Mating System
- Sibling x Sibling

### Appearance
- steel grey

### Related Genotype:
- $a/a$ **Tyrp1<sup>+</sup>*/Tyrp1<sup>+</sup>** **Myo5ad**/**Myo5ad**

### Citation
- When using the defective lipopolysaccharide response, 2J mouse strain in a publication, please cite the originating article(s) and include JAX stock #000029 in your Materials and Methods section.

### Animal Health Reports
- Facility Barrier Level Descriptions

- **FGB29 (Standard)**
### Pricing & Availability

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

#### Domestic

Pricing effective for USA, Canada and Mexico shipping destinations.

<table>
<thead>
<tr>
<th>AGE</th>
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<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>$139.90</td>
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<tr>
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Related Strains

- All
- By Allele
- By Gene
- By Collection