Also Known As: BTBR

This strain is used in studies of autism because it exhibits several symptoms of autism including reduced social interactions, impaired play, unusual vocalizations as compared to other inbred strains. BTBR mice exhibit a 100% absence of the corpus callosum and a severely reduced hippocampal commissure.
BTBR mice exhibit a 100% absence of the corpus callosum and a severely reduced hippocampal commissure (Wahlsten D, 2003 Brain Res). This strain exhibits several symptoms of autism including reduced social interactions, impaired play, low exploratory behavior, unusual vocalizations and high anxiety as compared to other inbred strains (McFarlane HG, 2008, Gen, Brain Behav; Moy SS, 2007, Behav Br Res, Scattoni ML, 2008, PLoS). Diet has been found to impact these phenotypes, levels of neuroinflammation, neurogenesis and synaptic function (Currais et al., 2016, Mol Psych).

This inbred strain recognized by its distinctive black and tan coat color and abnormal hair growth pattern and appearance. Specifically, mice homozygous for the spontaneous tufted mutation (Itpr3<sup>tf</sup>) exhibit alternating waves of hair loss and growth are repeated throughout the life of the mouse, creating a sparse hair appearance (Lyon MF, 1956, J Hered).

In 2019-2020, researchers at The Jackson Laboratory discovered this inbred strain contains the Trem2<sup>S148E</sup> allele - a naturally occurring variant at position 48351151-48351152 on Chr 17 (<rs108080490> and rs107649577; Ensembl GRCm38.p6). This TC to GA transition results in a serine to glutamic acid substitution at amino acid 148 (S148E).
Genotyping Protocols
End Point Analysis: Itpr3
Genotyping resources and troubleshooting
Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.

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

Breeding Considerations
This strain is an exceptional breeder.

Additional Breeding and Husbandry Support
Mating System
Sibling x Sibling

Appearance
black and tan, tufted

Related Genotype: a/a+ /tt/TT

Citation
When using the BTBR mouse strain in a publication, please include JAX stock #002282 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

AX8 (Standard)
Pricing & Availability

Available Now

Sized to accommodate orders of up to 50 or more. Ask Customer Service for details.

Domestic

Pricing effective for USA, Canada and Mexico shipping destinations

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<th>AGE</th>
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Related Products and Services

| Mouse ES Cells | BTBR T+ tf/J-PB60.6 mES cells | $695.00 |

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Terms Of Use

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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

All Related Strains