

# Resource Summary Report

Generated by ASWG on Aug 9, 2026

## STOCK Bdnf<sup>tm3Jae/J</sup>

RRID:IMSR\_JAX:004339

Type: Organism

### Proper Citation

RRID:IMSR\_JAX:004339

### Organism Information

**URL:** <https://www.jax.org/strain/004339>

**Proper Citation:** RRID:IMSR\_JAX:004339

**Description:** Mus musculus with name STOCK Bdnf<sup>tm3Jae/J</sup> from IMSR.

**Species:** Mus musculus

**Synonyms:** STOCK Bdnf/J

**Notes:** gene symbol note: brain derived neurotrophic factor; mutant stock: Bdnf

**Affected Gene:** brain derived neurotrophic factor

**Genomic Alteration:** targeted mutation 3; Rudolf Jaenisch

**Catalog Number:** JAX:004339

**Database:** JAX Mice and Services

**Database Abbreviation:** JAX

**Availability:** embryo

**Organism Name:** STOCK Bdnf<sup>tm3Jae/J</sup>

**Record Creation Time:** 20250513T053644+0000

**Record Last Update:** 20260808T050845+0000

### Ratings and Alerts

No rating or validation information has been found for STOCK Bdnf<sup>tm3Jae/J</sup>.

No alerts have been found for STOCK Bdnf<sup>tm3Jae/J</sup>.

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## Data and Source Information

**Source:** [Integrated Animals](#)

**Source Database:** JAX Mice and Services

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## Usage and Citation Metrics

We found 13 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [ASWG](#) .

McLachlan CA, et al. (2025) Transcriptional determinants of goal-directed learning and representational drift in the parahippocampal cortex. *Cell reports*, 44(1), 115175.

Yoo K, et al. (2024) Muscle-resident mesenchymal progenitors sense and repair peripheral nerve injury via the GDNF-BDNF axis. *eLife*, 13.

Zhang J, et al. (2024) Localized release of muscle-generated BDNF regulates the initial formation of postsynaptic apparatus at neuromuscular synapses. *Cell death and differentiation*.

Li L, et al. (2022) Ablation of cardiomyocyte-derived BDNF during development causes myocardial degeneration and heart failure in the adult mouse heart. *Frontiers in cardiovascular medicine*, 9, 967463.

Thapliyal S, et al. (2022) Retinoic acid-gated BDNF synthesis in neuronal dendrites drives presynaptic homeostatic plasticity. *eLife*, 11.

Zhang K, et al. (2022) A functional circuit formed by the autonomic nerves and myofibroblasts controls mammalian alveolar formation for gas exchange. *Developmental cell*, 57(13), 1566.

Kim S, et al. (2020) Dynamic Fas signaling network regulates neural stem cell proliferation and memory enhancement. *Science advances*, 6(17), eaaz9691.

Song HD, et al. (2020) Aging-Induced Brain-Derived Neurotrophic Factor in Adipocyte Progenitors Contributes to Adipose Tissue Dysfunction. *Aging and disease*, 11(3), 575.

Blaszkiwicz M, et al. (2020) The involvement of neuroimmune cells in adipose innervation. *Molecular medicine (Cambridge, Mass.)*, 26(1), 126.

Chase KA, et al. (2019) Examining the effects of the histone methyltransferase inhibitor BIX-01294 on histone modifications and gene expression in both a clinical population and mouse models. *PloS one*, 14(6), e0216463.

Xie X, et al. (2019) Activation of Anxiogenic Circuits Instigates Resistance to Diet-Induced Obesity via Increased Energy Expenditure. *Cell metabolism*, 29(4), 917.

Sun C, et al. (2018) Maintenance of Mouse Gustatory Terminal Field Organization Is Dependent on BDNF at Adulthood. *The Journal of neuroscience : the official journal of the*

Society for Neuroscience, 38(31), 6873.

Ferrini F, et al. (2013) Morphine hyperalgesia gated through microglia-mediated disruption of neuronal  $Cl^{-}$  homeostasis. *Nature neuroscience*, 16(2), 183.