

Resource Summary Report

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B6.FVB-Tg(Pomc-cre)1Lowl/J

RRID:IMSR_JAX:010714

Type: Organism

Proper Citation

RRID:IMSR_JAX:010714

Organism Information

URL: <https://www.jax.org/strain/010714>

Proper Citation: RRID:IMSR_JAX:010714

Description: Mus musculus with name B6.FVB-Tg(Pomc-cre)1Lowl/J from IMSR.

Species: Mus musculus

Synonyms: B6.FVB-Tg(Pomc-cre)1Stl/J

Notes: gene symbol note: pro-opiomelanocortin-alpha|transgene insertion 1; Bradford B Lowell||pro-opiomelanocortin-alpha|transgene insertion 1; Bradford B Lowell|; mutant strain: Pomc|Tg(Pomc-cre)1Lowl||Pomc|Tg(Pomc-cre)1Lowl|

Affected Gene: pro-opiomelanocortin-alpha|transgene insertion 1; Bradford B Lowell||pro-opiomelanocortin-alpha|transgene insertion 1; Bradford B Lowell|

Genomic Alteration: transgene insertion 1; Bradford B Lowell

Catalog Number: JAX:010714

Database: International Mouse Resource Center IMSR, JAX

Database Abbreviation: IMSR

Availability: sperm

Organism Name: B6.FVB-Tg(Pomc-cre)1Lowl/J

Ratings and Alerts

No rating or validation information has been found for B6.FVB-Tg(Pomc-cre)1Lowl/J.

No alerts have been found for B6.FVB-Tg(Pomc-cre)1Lowl/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: International Mouse Resource Center IMSR, JAX

Usage and Citation Metrics

We found 19 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](#).

Tan JW, et al. (2024) Neurotrophin-3 from the dentate gyrus supports postsynaptic sites of mossy fiber-CA3 synapses and hippocampus-dependent cognitive functions. Molecular psychiatry.

Mun SH, et al. (2023) Marchf6 E3 ubiquitin ligase critically regulates endoplasmic reticulum stress, ferroptosis, and metabolic homeostasis in POMC neurons. Cell reports, 42(7), 112746.

Wang Q, et al. (2023) Regional and cell-type-specific afferent and efferent projections of the mouse claustrum. Cell reports, 42(2), 112118.

Lhomme T, et al. (2023) Protocol for simultaneous patch-clamp recording from tanycytes and neurons in living mouse brain slices. STAR protocols, 4(4), 102571.

Coppola I, et al. (2022) Loss of hypothalamic Furin affects POMC to proACTH cleavage and feeding behavior in high-fat diet-fed mice. Molecular metabolism, 66, 101627.

Whitebirch AC, et al. (2022) Enhanced excitability of the hippocampal CA2 region and its contribution to seizure activity in a mouse model of temporal lobe epilepsy. Neuron, 110(19), 3121.

Lopez-Rojas J, et al. (2022) A direct lateral entorhinal cortex to hippocampal CA2 circuit conveys social information required for social memory. Neuron, 110(9), 1559.

Kang GM, et al. (2021) Mitohormesis in Hypothalamic POMC Neurons Mediates Regular Exercise-Induced High-Turnover Metabolism. Cell metabolism, 33(2), 334.

Órdenes P, et al. (2021) Lactate activates hypothalamic POMC neurons by intercellular signaling. Scientific reports, 11(1), 21644.

Carver CM, et al. (2020) Functional responses of the hippocampus to hyperexcitability

depend on directed, neuron-specific KCNQ2 K⁺ channel plasticity. *Hippocampus*, 30(5), 435.

Carver CM, et al. (2019) Gq-Coupled Muscarinic Receptor Enhancement of KCNQ2/3 Channels and Activation of TRPC Channels in Multimodal Control of Excitability in Dentate Gyrus Granule Cells. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 39(9), 1566.

Kim GH, et al. (2018) Hypothalamic ER-associated degradation regulates POMC maturation, feeding, and age-associated obesity. *The Journal of clinical investigation*, 128(3), 1125.

Dodd GT, et al. (2018) Insulin regulates POMC neuronal plasticity to control glucose metabolism. *eLife*, 7.

van Dijk MT, et al. (2018) On How the Dentate Gyrus Contributes to Memory Discrimination. *Neuron*, 98(4), 832.

Caron A, et al. (2018) POMC neurons expressing leptin receptors coordinate metabolic responses to fasting via suppression of leptin levels. *eLife*, 7.

Senzai Y, et al. (2017) Physiological Properties and Behavioral Correlates of Hippocampal Granule Cells and Mossy Cells. *Neuron*, 93(3), 691.

Martinez-Lopez N, et al. (2017) System-wide Benefits of Intermeal Fasting by Autophagy. *Cell metabolism*, 26(6), 856.

Sun Q, et al. (2017) Proximodistal Heterogeneity of Hippocampal CA3 Pyramidal Neuron Intrinsic Properties, Connectivity, and Reactivation during Memory Recall. *Neuron*, 95(3), 656.

Qiu J, et al. (2016) High-frequency stimulation-induced peptide release synchronizes arcuate kisspeptin neurons and excites GnRH neurons. *eLife*, 5.