

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 4, 2026

FVB.129P2-Pde6b⁺ Tyr Fmr1/J

RRID:IMSR_JAX:004624

Type: Organism

Proper Citation

RRID:IMSR_JAX:004624

Organism Information

URL: <https://www.jax.org/strain/004624>

Proper Citation: RRID:IMSR_JAX:004624

Description: Mus musculus with name FVB.129P2-Pde6b⁺ Tyr Fmr1/J from IMSR.

Species: Mus musculus

Synonyms: FVB.129P2-Fmr1/J

Notes: gene symbol note: phosphodiesterase 6B; cGMP; rod receptor; beta polypeptide|tyrosinase|fragile X messenger ribonucleoprotein 1; mutant strain|congenic strain: Pde6b|Tyr|Fmr1

Affected Gene: phosphodiesterase 6B; cGMP; rod receptor; beta polypeptide|tyrosinase|fragile X messenger ribonucleoprotein 1

Genomic Alteration: wild type|chinchilla|targeted mutation 1; Ben Oostra

Catalog Number: JAX:004624

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: FVB.129P2-Pde6b⁺ Tyr Fmr1/J

Record Creation Time: 20250513T053645+0000

Record Last Update: 20260801T050349+0000

Ratings and Alerts

No rating or validation information has been found for FVB.129P2-Pde6b⁺ Tyr Fmr1/J.

No alerts have been found for FVB.129P2-Pde6b⁺ Tyr Fmr1/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 24 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Tuma J, et al. (2025) Altered olfactory responses in Fmr1 KO mice. Scientific reports, 15(1), 2952.

Zhang S, et al. (2025) Therapeutic GSK-3 γ targeting stabilizes multifunctional β -catenin to rescue neuronal and behavioral deficits in fragile X messenger ribonucleoprotein 1 knockout mice. Brain research bulletin, 235, 111710.

Deng PY, et al. (2024) Circuit-based intervention corrects excessive dentate gyrus output in the fragile X mouse model. eLife, 12.

Maio B, et al. (2024) Protocol for identifying sound-activated neurons in the inferior colliculus by cFos immunostaining. STAR protocols, 5(4), 103482.

Louros SR, et al. (2023) Excessive proteostasis contributes to pathology in fragile X syndrome. Neuron, 111(4), 508.

Lindenmaier Z, et al. (2022) Examining the effect of chronic intranasal oxytocin administration on the neuroanatomy and behavior of three autism-related mouse models. Neurolmage, 257, 119243.

Deng PY, et al. (2022) FMRP regulates GABAA receptor channel activity to control signal integration in hippocampal granule cells. Cell reports, 39(7), 110820.

Layman E, et al. (2022) Protocol for assessing phagocytosis activity in cultured primary murine microglia. STAR protocols, 3(4), 101881.

Hwang JY, et al. (2022) CPEB3-dependent increase in GluA2 subunits impairs excitatory transmission onto inhibitory interneurons in a mouse model of fragile X. Cell reports, 39(10), 110853.

Sibille J, et al. (2022) Absence of the Fragile X messenger ribonucleoprotein alters response patterns to sounds in the auditory midbrain. Frontiers in neuroscience, 16, 987939.

Barajas M, et al. (2021) The newborn Fmr1 knockout mouse: a novel model of excess ubiquinone and closed mitochondrial permeability transition pore in the developing heart. *Pediatric research*, 89(3), 456.

Park E, et al. (2021) FMRP Interacts with RAR γ in Synaptic Retinoic Acid Signaling and Homeostatic Synaptic Plasticity. *International journal of molecular sciences*, 22(12).

Licznerski P, et al. (2020) ATP Synthase c-Subunit Leak Causes Aberrant Cellular Metabolism in Fragile X Syndrome. *Cell*, 182(5), 1170.

Li J, et al. (2020) Defective memory engram reactivation underlies impaired fear memory recall in Fragile X syndrome. *eLife*, 9.

Cheng K, et al. (2019) Calsyntenin-1 Negatively Regulates ICAM5 Accumulation in Postsynaptic Membrane and Influences Dendritic Spine Maturation in a Mouse Model of Fragile X Syndrome. *Frontiers in neuroscience*, 13, 1098.

Antoine MW, et al. (2019) Increased Excitation-Inhibition Ratio Stabilizes Synapse and Circuit Excitability in Four Autism Mouse Models. *Neuron*, 101(4), 648.

Rogers TD, et al. (2017) Effects of a social stimulus on gene expression in a mouse model of fragile X syndrome. *Molecular autism*, 8, 30.

Thomson SR, et al. (2017) Cell-Type-Specific Translation Profiling Reveals a Novel Strategy for Treating Fragile X Syndrome. *Neuron*, 95(3), 550.

Garcia-Pino E, et al. (2017) Enhanced Excitatory Connectivity and Disturbed Sound Processing in the Auditory Brainstem of Fragile X Mice. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 37(31), 7403.

He CX, et al. (2017) Tactile Defensiveness and Impaired Adaptation of Neuronal Activity in the Fmr1 Knock-Out Mouse Model of Autism. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 37(27), 6475.