

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 9, 2026

LE-Tg(Drd2-iCre)1Ottc

RRID:RRRC_00768

Type: Organism

Proper Citation

RRID:RRRC_00768

Organism Information

URL: http://rgd.mcw.edu/tools/strains/strains_view.cgi?id=10412327

Proper Citation: RRID:RRRC_00768

Description: Rattus norvegicus with name LE-Tg(Drd2-iCre)1Ottc from RGD.

Species: Rattus norvegicus

Notes: The transgene expresses BAC transgenic using rat dopamine receptor 2 promoter to express Cre recombinase in D2R neurons [Optogenetics and Transgenic Technology Core](#), [Rat Resource and Research Center](#)

Catalog Number: 00768

Background: transgenic

Database: Rat Resource and Research Center (RRRC)

Database Abbreviation: RRRC

Availability: Live Animals (as of 2019-03-18)

Alternate IDs: RGD_10412327, 10412327, RRRC_768, RRRC_0768, RRRC_00768

Organism Name: LE-Tg(Drd2-iCre)1Ottc

Record Creation Time: 20230607T202007+0000

Record Last Update: 20260808T100722+0000

Ratings and Alerts

No rating or validation information has been found for LE-Tg(Drd2-iCre)1Ottc .

No alerts have been found for LE-Tg(Drd2-iCre)1Ottc .

Data and Source Information

Source: [Integrated Animals](#)

Source Database: Rat Resource and Research Center (RRRC)

Usage and Citation Metrics

We found 15 mentions in open access literature.

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

Saland SK, et al. (2026) Estrous Cycle Influences Cell-Type-Specific Translational Signatures of Repeated Ketamine Exposure in the Rat Nucleus Accumbens. *eNeuro*, 13(1).

Jennings SD, et al. (2026) Sex and individual differences in ketamine's effects on alcohol drinking in rats. *Alcohol, clinical & experimental research*, 50(3), e70275.

Jennings SD, et al. (2025) Effects of Chronic Social Isolation Stress and Alcohol on the Reinforcing Properties of Ketamine in Male and Female Rats. *eNeuro*, 12(3).

Beacher NJ, et al. (2025) Miniscope Imaging of Nucleus Accumbens Neural Activity in Freely Behaving Rats: Virus Injection, Gradient Index Lens Implantation, Recording Strategies, and Analytical Methods. *Current protocols*, 5(1), e70090.

Mitra S, et al. (2024) A Novel Role for the Histone Demethylase JMJD3 in Mediating Heroin-Induced Relapse-Like Behaviors. *Biological psychiatry*.

Hagarty DP, et al. (2024) Exploring ketamine's reinforcement, cue-induced reinstatement, and nucleus accumbens cFos activation in male and female long evans rats. *Neuropharmacology*, 255, 110008.

Swinford-Jackson SE, et al. (2023) Low frequency deep brain stimulation of nucleus accumbens shell neuronal subpopulations attenuates cocaine seeking selectively in male rats. *Addiction neuroscience*, 9.

Truckenbrod LM, et al. (2023) Circuit and Cell-Specific Contributions to Decision Making Involving Risk of Explicit Punishment in Male and Female Rats. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 43(26), 4837.

Zhang Y, et al. (2023) Calcitonin receptor signaling in nucleus accumbens D1R- and D2R-expressing medium spiny neurons bidirectionally alters opioid taking in male rats. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 48(13), 1878.

Okas M, et al. (2023) A brief exposure to toluene vapor alters the intrinsic excitability of D2 medium spiny neurons in the rat ventral striatum. *Frontiers in neuroscience*, 17, 1235866.

Swinford-Jackson SE, et al. (2023) High frequency DBS-like optogenetic stimulation of nucleus accumbens dopamine D2 receptor-containing neurons attenuates cocaine reinstatement in male rats. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 48(3), 459.

Kruyer A, et al. (2022) Astrocytes in the ventral pallidum extinguish heroin seeking through GAT-3 upregulation and morphological plasticity at D1-MSN terminals. *Molecular psychiatry*, 27(2), 855.

Strong CE, et al. (2020) Chemogenetic selective manipulation of nucleus accumbens medium spiny neurons bidirectionally controls alcohol intake in male and female rats. *Scientific reports*, 10(1), 19178.

Zhang Y, et al. (2020) Activation of GLP-1 receptors attenuates oxycodone taking and seeking without compromising the antinociceptive effects of oxycodone in rats. *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*, 45(3), 451.

Martin JA, et al. (2019) A novel role for the actin-binding protein drebrin in regulating opiate addiction. *Nature communications*, 10(1), 4140.