

Resource Summary Report

Generated by [dkNET](#) on Sep 12, 2026

W-Tg(HCRT-cre-EGFP)B5Ahky

RRID:RGD_12879423

Type: Organism

Proper Citation

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Organism Information

URL: <https://rgd.mcw.edu/rgdweb/report/strain/main.html?id=12879423>

Proper Citation: RRID:RGD_12879423

Description: Rattus norvegicus with name W-Tg(HCRT-cre-EGFP)B5Ahky from RGD.

Species: Rattus norvegicus

Notes: This transgenic rat strain was established by Dr. Yamanaka (Nagoya University) in 2012. Background strain: Wistar rat (CLEA Japan). plasmid backbone: pCR2.1. Transgene: human HCRT gene promoter, cre recombinase, EGFP gene, 2A gene. EGFP and cre recombinase are specifically expressed in orexin neurons. [National BioResource Project for the Rat in Japan](#)

Catalog Number: 12879423

Background: transgenic

Database: Rat Genome Database (RGD)

Database Abbreviation: RGD

Availability: Unknown

Alternate IDs: 12879423

Organism Name: W-Tg(HCRT-cre-EGFP)B5Ahky

Record Creation Time: 20230509T191947+0000

Record Last Update: 20260905T135236+0000

Ratings and Alerts

No rating or validation information has been found for W-Tg(HCRT-cre-EGFP)B5Ahky.

No alerts have been found for W-Tg(HCRT-cre-EGFP)B5Ahky.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: Rat Genome Database (RGD)

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Narai E, et al. (2024) Orexinergic neurons contribute to autonomic cardiovascular regulation for locomotor exercise. The Journal of physiology.

Kim JG, et al. (2023) Orexinergic neurons modulate stress coping responses in mice. Frontiers in molecular neuroscience, 16, 1140672.

Luo F, et al. (2023) Anterior cingulate cortex orexin signaling mediates early-life stress-induced social impairment in females. Proceedings of the National Academy of Sciences of the United States of America, 120(20), e2220353120.

Feng H, et al. (2020) Orexin signaling modulates synchronized excitation in the sublaterodorsal tegmental nucleus to stabilize REM sleep. Nature communications, 11(1), 3661.

Torontali ZA, et al. (2019) The Sublaterodorsal Tegmental Nucleus Functions to Couple Brain State and Motor Activity during REM Sleep and Wakefulness. Current biology : CB, 29(22), 3803.