

Resource Summary Report

Generated by FDI Lab - SciCrunch.org on Apr 2, 2025

pAAV-EF1a-double floxed-hChR2(H134R)-EYFP-WPRE-HGHpA

RRID:Addgene_20298

Type: Plasmid

Proper Citation

RRID:Addgene_20298

Plasmid Information

URL: <http://www.addgene.org/20298>

Proper Citation: RRID:Addgene_20298

Insert Name: channelrhodopsin-2

Organism: *C. reinhardtii*

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:](#)

Vector Backbone Description: Backbone Marker:Stratagene; Backbone Size:5604; Vector Backbone:pAAV; Vector Types:Mammalian Expression, AAV, Other; Bacterial Resistance:Ampicillin

Comments: Please see <http://www.optogenetics.org> for additional information.

Plasmid Name: pAAV-EF1a-double floxed-hChR2(H134R)-EYFP-WPRE-HGHpA

Relevant Mutation: humanized ChR2 gene with histidine 134 changed to arginine, to achieve higher currents

Record Creation Time: 20220422T222050+0000

Record Last Update: 20231014T080435+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-EF1a-double floxed-hChR2(H134R)-EYFP-WPRE-HGHpA.

No alerts have been found for pAAV-EF1a-double floxed-hChR2(H134R)-EYFP-WPRE-HGHpA.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 147 mentions in open access literature.

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

Koster KP, et al. (2024) Convergence of inputs from the basal ganglia with layer 5 of motor cortex and cerebellum in mouse motor thalamus. bioRxiv : the preprint server for biology.

Dwivedi D, et al. (2024) Metabotropic signaling within somatostatin interneurons controls transient thalamocortical inputs during development. Nature communications, 15(1), 5421.

Harding EK, et al. (2024) Expression of GAD2 in excitatory neurons projecting from the ventrolateral periaqueductal gray to the locus coeruleus. iScience, 27(6), 109972.

Ruff CF, et al. (2024) Long-range inhibitory neurons mediate cortical neurovascular coupling. Cell reports, 43(4), 113970.

Sayar-Atasoy N, et al. (2024) Opioidergic signaling contributes to food-mediated suppression of AgRP neurons. Cell reports, 43(1), 113630.

Messanvi F, et al. (2024) Galanin receptor 1 expressing neurons in hippocampal-prefrontal circuitry modulate goal directed attention and impulse control. bioRxiv : the preprint server for biology.

Kwok CHT, et al. (2024) Pannexin-1 channel inhibition alleviates opioid withdrawal in rodents by modulating locus coeruleus to spinal cord circuitry. Nature communications, 15(1), 6264.

van Hoogstraten WS, et al. (2024) Disynaptic Inhibitory Cerebellar Control Over Caudal Medial Accessory Olive. eNeuro, 11(2).

van Beest EH, et al. (2024) The direct and indirect pathways of the basal ganglia antagonistically influence cortical activity and perceptual decisions. iScience, 27(9), 110753.

Hammer N, et al. (2024) Optogenetic action potentials and intrinsic pacemaker interplay in retrogradely identified midbrain dopamine neurons. *The European journal of neuroscience*, 59(6), 1311.

Cai J, et al. (2024) An excitatory projection from the basal forebrain to the ventral tegmental area that underlies anorexia-like phenotypes. *Neuron*, 112(3), 458.

Cregg JM, et al. (2024) Basal ganglia-spinal cord pathway that commands locomotor gait asymmetries in mice. *Nature neuroscience*, 27(4), 716.

Jiang Z, et al. (2024) Dopaminergic Neurons in Zona Incerta Drives Appetitive Self-Grooming. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 11(36), e2308974.

Takashima Y, et al. (2024) Selective plasticity of layer 2/3 inputs onto distal forelimb controlling layer 5 corticospinal neurons with skilled grasp motor training. *Cell reports*, 43(4), 113986.

Djama D, et al. (2024) The type of inhibition provided by thalamic interneurons alters the input selectivity of thalamocortical neurons. *Current research in neurobiology*, 6, 100130.

Lu Y, et al. (2024) Dorsolateral septum GLP-1R neurons regulate feeding via lateral hypothalamic projections. *Molecular metabolism*, 85, 101960.

Kim T, et al. (2024) Activated somatostatin interneurons orchestrate memory microcircuits. *Neuron*, 112(2), 201.

Wang L, et al. (2024) State-dependent central synaptic regulation by GLP-1 is essential for energy homeostasis. *Research square*.

Rigney N, et al. (2024) A vasopressin circuit that modulates mouse social investigation and anxiety-like behavior in a sex-specific manner. *Proceedings of the National Academy of Sciences of the United States of America*, 121(20), e2319641121.

Munguba H, et al. (2024) Projection-Targeted Photopharmacology Reveals Distinct Anxiolytic Roles for Presynaptic mGluR2 in Prefrontal- and Insula-Amygdala Synapses. *bioRxiv : the preprint server for biology*.