

# Resource Summary Report

Generated by [RRID](#) on Sep 2, 2026

## pAAV-CAG-DIO-ChR2(H134R)-eYFP

RRID:Addgene\_127090

Type: Plasmid

### Proper Citation

RRID:Addgene\_127090

### Plasmid Information

**URL:** <http://www.addgene.org/127090>

**Proper Citation:** RRID:Addgene\_127090

**Insert Name:** Channelrhodopsin-2

**Organism:** C. reinhardtii

**Bacterial Resistance:** Ampicillin

**Defining Citation:** [PMID:31028266](#)

**Vector Backbone Description:** Vector Backbone:pAAV; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

**Comments:** \*Note: This construct is based on Addgene ID 20298 (the Ef1a promoter was changed to the CAG promoter).

**Plasmid Name:** pAAV-CAG-DIO-ChR2(H134R)-eYFP

**Relevant Mutation:** Humanized ChR2 gene with histidine 134 changed to arginine (H134R), to achieve higher currents

**Record Creation Time:** 20220422T221706+0000

**Record Last Update:** 20260902T041636+0000

### Ratings and Alerts

No rating or validation information has been found for pAAV-CAG-DIO-ChR2(H134R)-eYFP.

No alerts have been found for pAAV-CAG-DIO-ChR2(H134R)-eYFP.

## Data and Source Information

**Source:** [Addgene](#)

## Usage and Citation Metrics

We found 12 mentions in open access literature.

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

de Araujo Salgado I, et al. (2026) High-fat food reinforces risk taking by suppressing defensive neurons. *Current biology* : CB, 36(1), 49.

Fatima M, et al. (2026) A specialized population of hair afferents dedicated to transmitting mechanical itch. *Neuron*.

Chen L, et al. (2025) Motor cortical neuronal hyperexcitability associated with  $\alpha$ -synuclein aggregation. *NPJ Parkinson's disease*, 11(1), 18.

Kinney JL, et al. (2025) Top-down regulation of subcortical regions by hippocampal long-range inhibition. *Current biology* : CB, 35(23), 5853.

Ramirez JM, et al. (2025) The role of medullary astrocytes in breathing and arousal: insights into glial regulation of respiratory function. *Research square*.

Chen L, et al. (2024) Motor Cortical Neuronal Hyperexcitability Associated with  $\alpha$ -Synuclein Aggregation. *bioRxiv* : the preprint server for biology.

Chen L, et al. (2024) Motor Cortical Neuronal Hyperexcitability Associated with  $\alpha$ -Synuclein Aggregation. *Research square*.

Berry MH, et al. (2023) A melanopsin ganglion cell subtype forms a dorsal retinal mosaic projecting to the supraoptic nucleus. *Nature communications*, 14(1), 1492.

Ip CK, et al. (2023) Critical role of lateral habenula circuits in the control of stress-induced palatable food consumption. *Neuron*, 111(16), 2583.

Chen L, et al. (2023) Reduced thalamic excitation to motor cortical pyramidal tract neurons in parkinsonism. *Science advances*, 9(34), eadg3038.

Veerakumar A, et al. (2022) Molecularly defined circuits for cardiovascular and cardiopulmonary control. *Nature*, 606(7915), 739.

Chen L, et al. (2022) Synaptic location is a determinant of the detrimental effects of  $\alpha$ -synuclein pathology to glutamatergic transmission in the basolateral amygdala. *eLife*, 11.