

Resource Summary Report

Generated by [RRID](#) on Aug 17, 2026

pAAV-Ef1a-DIO hChR2(E123T/T159C)-EYFP

RRID:Addgene_35509

Type: Plasmid

Proper Citation

RRID:Addgene_35509

Plasmid Information

URL: <http://www.addgene.org/35509>

Proper Citation: RRID:Addgene_35509

Insert Name: hChR2

Organism: Chlamydomonas reinhardtii

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:22179551](#)

Vector Backbone Description: Backbone Marker:Stratagene; Backbone Size:5605; Vector Backbone:pAAV; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

Plasmid Name: pAAV-Ef1a-DIO hChR2(E123T/T159C)-EYFP

Relevant Mutation: E123T and T159C

Record Creation Time: 20220422T222151+0000

Record Last Update: 20260815T081401+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-Ef1a-DIO hChR2(E123T/T159C)-EYFP.

No alerts have been found for pAAV-Ef1a-DIO hChR2(E123T/T159C)-EYFP.

Data and Source Information

Usage and Citation Metrics

We found 69 mentions in open access literature.

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

Ruan S, et al. (2026) Basal ganglia output dynamically controls skilled forelimb kinematics in real time. bioRxiv : the preprint server for biology.

Vattino LG, et al. (2026) Layer 6 is a hub for cholinergic modulation in the mouse auditory cortex. Cerebral cortex (New York, N.Y. : 1991), 36(1).

Flerlage WJ, et al. (2026) Neuroanatomical and behavioral characterization of corticotropin releasing factor-expressing lateral Habenula neurons in mice. bioRxiv : the preprint server for biology.

Del Río-Martín A, et al. (2026) Mitochondrial fission factor regulates mitochondrial Ca²⁺ homeostasis and neuronal activity in AgRP neurons. Neuron.

Kelly TJ, et al. (2026) CB1 receptor signaling at the cingulate-striatal circuit is anxiogenic. Nature communications, 17(1).

Hoang IB, et al. (2026) Methamphetamine potentiates the use of outcome-specific associations via a hypothalamic-dopamine circuit. Neuron.

Offermanns A, et al. (2025) Developmental embedding of parvalbumin-positive interneurons drives local and crosshemispheric prefrontal gamma synchrony. Progress in neurobiology, 257, 102866.

Krauth N, et al. (2025) A hypothalamus-brainstem circuit governs the prioritization of safety over essential needs. Nature neuroscience, 28(7), 1473.

Johnson NL, et al. (2025) Dopaminergic signaling to ventral striatum neurons initiates sniffing behavior. Nature communications, 16(1), 336.

Kang S, et al. (2025) Pallidal prototypic neuron and astrocyte activities regulate flexible reward-seeking behaviors. bioRxiv : the preprint server for biology.

Vargas-Ortiz J, et al. (2025) Translaminar synchronous neuronal activity is required for columnar synaptic strengthening in the mouse neocortex. Nature communications, 16(1), 1296.

Vattino LG, et al. (2025) Layer 6 is a hub for cholinergic modulation in the mouse auditory cortex. bioRxiv : the preprint server for biology.

Brandalise F, et al. (2025) Thalamocortical feedback selectively controls pyramidal neuron excitability. Nature communications, 16(1), 5663.

Hong CY, et al. (2025) Anterior hypothalamic nucleus drives distinct defensive responses through cell-type-specific activity. *iScience*, 28(4), 112097.

Baccini G, et al. (2025) Parvalbumin expression identifies subicular principal cells with high projection specificity. *Cell reports*, 44(8), 116004.

Li T, et al. (2025) A pontine center in descending pain control. *Neuron*, 113(11), 1789.

Requejo-Mendoza N, et al. (2025) Nucleus accumbens D2-expressing neurons: Balancing reward and licking disruption through rhythmic optogenetic stimulation. *PloS one*, 20(2), e0317605.

English A, et al. (2025) Behavioral Decoding Reveals Cortical Endocannabinoid Potentiation during Δ^9 -THC Impairment. *bioRxiv* : the preprint server for biology.

Sehgal M, et al. (2025) Compartmentalized dendritic plasticity in the mouse retrosplenial cortex links contextual memories formed close in time. *Nature neuroscience*, 28(3), 602.

Bortolozzo-Gleich MH, et al. (2025) Impaired vasopressin neuromodulation of the lateral septum leads to social behavior deficits in *Shank3B*^{+/-} male mice. *Nature communications*, 16(1), 6783.