Resource Summary Report

Generated by RRID on Aug 21, 2026

pAAV-hSyn-DIO-HA-hM4D(Gi)-IRES-mCitrine

RRID:Addgene_50455
Type: Plasmid

Proper Citation

RRID:Addgene_50455

Plasmid Information

URL: http://www.addgene.org/50455

Proper Citation: RRID:Addgene_50455

Insert Name: hM4D(Gi)-IRES-mCitrine

Organism: Homo sapiens

Bacterial Resistance: Ampicillin

Vector Backbone Description: Backbone Size:4818; Vector Backbone:pAAV; Vector Types:AAV; Bacterial Resistance:Ampicillin

Comments: These plasmids were generated as part of the Illuminating the Druggable Genome (IDG) program sponsored by the NIH Common Fund. The goal of this program is to identify, gather, and distribute information and resources for proteins that currently are not well-studied yet belong to commonly drug-targeted protein families: protein kinases, non-olfactory G-protein coupled receptors (GPCRs), and ion channels. The IDG program is designed to develop fundamental research tools for understudied proteins, elucidate their function, and disseminate the IDG-related resources and data to the greater scientific community.

Plasmid Name: pAAV-hSyn-DIO-HA-hM4D(Gi)-IRES-mCitrine

Relevant Mutation: See supplemental documents for DREADD mutations

Record Creation Time: 20220422T222258+0000

Record Last Update: 20260815T081606+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-hSyn-DIO-HA-hM4D(Gi)-IRES-mCitrine.

No alerts have been found for pAAV-hSyn-DIO-HA-hM4D(Gi)-IRES-mCitrine.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 19 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID .

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.

Bessi??res B, et al. (2026) Infant learning forms lasting memory schemas that influence adult behavior. Neuron.

Carter CA, et al. (2026) Divergent Roles of Nucleus Accumbens D1- and D2-MSNs in Regulating Hedonic Feeding. The Journal of neuroscience : the official journal of the Society for Neuroscience, 46(10).

Lucantonio F, et al. (2025) Ketamine rescues anhedonia by cell-type- and input-specific adaptations in the nucleus accumbens. Neuron, 113(9), 1398.

Patton MH, et al. (2025) Schizophrenia-associated 22q11.2 deletion elevates striatal acetylcholine and disrupts thalamostriatal projections to produce amotivation in mice. bioRxiv : the preprint server for biology.

Glangetas C, et al. (2024) A population of Insula neurons encodes for social preference only after acute social isolation in mice. Nature communications, 15(1), 7142.

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

Kokinovic B, et al. (2024) Chemogenetic Silencing of Neonatal Spontaneous Activity of Projection Neurons in the Dorsal Striatum of Mice. Bio-protocol, 14(20), e5088.

Antonoudiou P, et al. (2024) Experience-dependent information routing through the basolateral amygdala shapes behavioral outcomes. Cell reports, 43(7), 114489.

Delgado-Zabalza L, et al. (2023) Targeting parvalbumin-expressing neurons in the substantia nigra pars reticulata restores motor function in parkinsonian mice. Cell reports, 42(10), 113287.

Keller D, et al. (2022) A thalamo-preoptic pathway promotes social grooming in rodents. Current biology : CB, 32(21), 4593.

Zhang Y, et al. (2022) Targeting thalamic circuits rescues motor and mood deficits in PD mice. Nature, 607(7918), 321.

Bales MB, et al. (2022) High fat diet blunts stress-induced hypophagia and activation of Glp1r dorsal lateral septum neurons in male but not in female mice. Molecular metabolism, 64, 101571.

Davenport CM, et al. (2022) Innate frequency-discrimination hyperacuity in Williams-Beuren syndrome mice. Cell, 185(21), 3877.

Smith ACW, et al. (2021) Opposing roles for striatonigral and striatopallidal neurons in dorsolateral striatum in consolidating new instrumental actions. Nature communications, 12(1), 5121.

Lauri A, et al. (2019) Whole-Cell Photoacoustic Sensor Based on Pigment Relocalization. ACS sensors, 4(3), 603.

Meira T, et al. (2018) A hippocampal circuit linking dorsal CA2 to ventral CA1 critical for social memory dynamics. Nature communications, 9(1), 4163.

Leroy F, et al. (2018) A circuit from hippocampal CA2 to lateral septum disinhibits social aggression. Nature, 564(7735), 213.

Leroy F, et al. (2017) Input-Timing-Dependent Plasticity in the Hippocampal CA2 Region and Its Potential Role in Social Memory. Neuron, 95(5), 1089.