Resource Summary Report

Generated by dkNET on Aug 26, 2026

pAAV-hSyn-hM4D(Gi)-mCherry

RRID:Addgene_50475
Type: Plasmid

Proper Citation

RRID:Addgene_50475

Plasmid Information

URL: http://www.addgene.org/50475

Proper Citation: RRID:Addgene_50475

Insert Name: hM4D(Gi)-mCherry

Bacterial Resistance: Ampicillin

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

Comments: Please Note- This plasmid does NOT contain an N-terminal HA tag. 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-hM4D(Gi)-mCherry

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-hM4D(Gi)-mCherry.

No alerts have been found for pAAV-hSyn-hM4D(Gi)-mCherry.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 116 mentions in open access literature.

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

Chhabria K, et al. (2026) A hypoxia-sensitive medullary nucleus modulates cerebral blood flow via a disynaptic pathway to cortex. bioRxiv : the preprint server for biology.

Kolling LJ, et al. (2026) Selective reduction of KCNA4 in vulnerable glutamatergic-serotonin neurons of the dorsal raphe nucleus in Alzheimer's disease. Alzheimer's & dementia : the journal of the Alzheimer's Association, 22(5), e71317.

Jiang Q, et al. (2026) Psilocybin triggers an activity-dependent rewiring of large-scale cortical networks. Cell, 189(2), 659.

Bassett TE, et al. (2026) Response dynamics of discrete subiculum???retrosplenial cortex projections underlying trace fear conditioning. iScience, 29(4), 115317.

Ruzal K, et al. (2026) Dissociating neural circuits of social and prosocial reward in rat helping behavior. iScience, 29(2), 114694.

Dos-Santos RC, et al. (2026) Norepinephrine neurons in the locus coeruleus and the nucleus of the solitary tract drive different stress-related behavioral outputs in mice. Neurobiology of stress, 42, 100802.

Ronzano R, et al. (2026) Neuronal Activity Promotes Node-Like Cluster Assembly Prior to Myelination and Remyelination in the Central Nervous System. Glia, 74(4), e70138.

Francis-Oliveira J, et al. (2026) Adolescent social isolation creates a latent vulnerability in maternal care with intergenerational social consequences, rescued by experienced mothers. bioRxiv : the preprint server for biology.

de Sousa AF, et al. (2026) The prefrontal cortex controls memory organization in the hippocampus. Nature neuroscience, 29(5), 1191.

Komal R, et al. (2026) ipRGC properties prevent light from shifting the SCN clock during daytime. Nature.

Nishimura KJ, et al. (2026) Paraventricular thalamus hyperactivity mediates stress-induced sensitization of unlearned fear but not stress-enhanced fear learning (SEFL). eLife, 14.

Folkes OM, et al. (2026) Social Novelty Recruits a Dysfunctional Nucleus Accumbens Ensemble That Drives Social Avoidance in a Shank3 -/- Autism Model. bioRxiv : the preprint server for biology.

An L, et al. (2026) Contamination of Engram Coactivity Networks During Forgetting. bioRxiv : the preprint server for biology.

Chan AE, et al. (2025) Nucleus accumbens core chemogenetic excitation in male mice and chemogenetic inhibition in female mice reduced ethanol reward. Biology of sex differences, 16(1), 66.

Andoh M, et al. (2025) Nonapoptotic caspase-3 guides C1q-dependent synaptic phagocytosis by microglia. Nature communications, 16(1), 918.

Zhang J, et al. (2025) Restoration of excitation/inhibition balance enhances neuronal signal-to-noise ratio and rescues social deficits in autism-associated Scn2a-deficiency. bioRxiv : the preprint server for biology.

Tohyama S, et al. (2025) Aversive experiences induce valence plasticity of instructive signals to change future learning rules in mice. Communications biology, 8(1), 1002.

Fulton SL, et al. (2025) Major-depressive-disorder-associated dysregulation of ZBTB7A in orbitofrontal cortex promotes astrocyte-mediated stress susceptibility. Neuron, 113(16), 2656.

Chouvaeff M, et al. (2025) A top-down control of stress-induced REM sleep shortening. Current biology : CB, 35(17), 4151.

Benedict J, et al. (2025) The Lateral Habenula Is Necessary for Maternal Behavior in the Naturally Parturient Primiparous Mouse Dam. eNeuro, 12(1).