# Resource Summary Report

Generated by NIF on Jul 30, 2026

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

RRID:Addgene_50464
Type: Plasmid

### Proper Citation

RRID:Addgene_50464

### Plasmid Information

**URL:** http://www.addgene.org/50464

**Proper Citation:** RRID:Addgene_50464

**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-HA-hM4D(Gi)-IRES-mCitrine

**Record Creation Time:** 20220422T222258+0000

**Record Last Update:** 20260725T074805+0000

### Ratings and Alerts

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

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

## Data and Source Information

**Source:** Addgene

## Usage and Citation Metrics

We found 9 mentions in open access literature.

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


Kumar PA, et al. (2024) Chemogenetic Attenuation of Acute Nociceptive Signaling Enhances Functional Outcomes Following Spinal Cord Injury. Journal of neurotrauma, 41(9-10), 1060.

de Lima MAX, et al. (2022) The anterior cingulate cortex and its role in controlling contextual fear memory to predatory threats. eLife, 11.

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.

Patzke C, et al. (2021) Cannabinoid receptor activation acutely increases synaptic vesicle numbers by activating synapsins in human synapses. Molecular psychiatry, 26(11), 6253.

Wang BS, et al. (2021) Retinal and Callosal Activity-Dependent Chandelier Cell Elimination Shapes Binocularity in Primary Visual Cortex. Neuron, 109(3), 502.

Raper J, et al. (2019) Chemogenetic Inhibition of the Amygdala Modulates Emotional Behavior Expression in Infant Rhesus Monkeys. eNeuro, 6(5).

Galvan A, et al. (2019) Ultrastructural localization of DREADDs in monkeys. The European journal of neuroscience, 50(5), 2801.

Wang Q, et al. (2017) Ketamine-induced apoptosis in the mouse cerebral cortex follows similar characteristic of physiological apoptosis and can be regulated by neuronal activity. Molecular brain, 10(1), 24.

Yuan P, et al. (2016) Attenuation of ??-Amyloid Deposition and Neurotoxicity by Chemogenetic Modulation of Neural Activity. The Journal of neuroscience : the official journal of the Society for Neuroscience, 36(2), 632.