

Resource Summary Report

Generated by [NIF](#) on Jul 30, 2026

pAAV-hSyn-HA-hM3D(Gq)-IRES-mCitrine

RRID:Addgene_50463

Type: Plasmid

Proper Citation

RRID:Addgene_50463

Plasmid Information

URL: <http://www.addgene.org/50463>

Proper Citation: RRID:Addgene_50463

Insert Name: hM3D(Gq)-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-hM3D(Gq)-IRES-mCitrine

Relevant Mutation: See supplemental documents for DREADD mutations

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-hM3D(Gq)-IRES-mCitrine.

No alerts have been found for pAAV-hSyn-HA-hM3D(Gq)-IRES-mCitrine.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 7 mentions in open access literature.

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

Zhang X, et al. (2025) Functional optic tract rewiring via subtype- and target-specific axonal regeneration and presynaptic activity enhancement. Nature communications, 16(1), 2174.

Chen Y, et al. (2023) Circuit-specific gene therapy reverses core symptoms in a primate Parkinson's disease model. Cell, 186(24), 5394.

Nahar L, et al. (2021) Regulation of Pv-specific interneurons in the medial prefrontal cortex and reward-seeking behaviors. Journal of neurochemistry, 156(2), 212.

Denaxa M, et al. (2019) Transplantation of Chemogenetically Engineered Cortical Interneuron Progenitors into Early Postnatal Mouse Brains. Journal of visualized experiments : JoVE(150).

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.

Li S, et al. (2016) Promoting axon regeneration in the adult CNS by modulation of the melanopsin/GPCR signaling. Proceedings of the National Academy of Sciences of the United States of America, 113(7), 1937.