Resource Summary Report

Generated by dkNET on Sep 3, 2026

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

RRID:Addgene_50454
Type: Plasmid

Proper Citation

RRID:Addgene_50454

Plasmid Information

URL: http://www.addgene.org/50454

Proper Citation: RRID:Addgene_50454

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-DIO-HA-hM3D(Gq)-IRES-mCitrine

Relevant Mutation: See supplemental documents for DREADD mutations

Record Creation Time: 20220422T222258+0000

Record Last Update: 20260902T045619+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-hSyn-DIO-HA-hM3D(Gq)-IRES-mCitrine.

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

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 14 mentions in open access literature.

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

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).

Raven F, et al. (2026) Dentate gyrus network regulation by somatostatin- and parvalbumin-expressing interneurons differentially impacts spatial memory processing. iScience, 29(3), 115067.

Gomez AM, et al. (2025) Aberrant hypothalamic neuronal activity blunts glucocorticoid diurnal rhythms in murine breast cancer. Neuron.

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.

Darcey TS, et al. (2025) Reflex regulation of respiration and heart rate by inhaled activators of vagal bronchopulmonary afferents. Journal of neurophysiology, 134(5), 1540.

Raven F, et al. (2025) Dentate gyrus network regulation by somatostatin- and parvalbumin-expressing interneurons differentially impacts hippocampal spatial memory processing. bioRxiv : the preprint server for biology.

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

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.

Kim J, et al. (2022) LRRTM3 regulates activity-dependent synchronization of synapse properties in topographically connected hippocampal neural circuits. Proceedings of the National Academy of Sciences of the United States of America, 119(3).

Stoltenborg I, et al. (2022) TRAPing Ghrelin-Activated Circuits: A Novel Tool to Identify, Target and Control Hormone-Responsive Populations in TRAP2 Mice. International

journal of molecular sciences, 23(1).

Ran C, et al. (2022) A brainstem map for visceral sensations. Nature, 609(7926), 320.

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

Metcalfe M, et al. (2022) Harnessing rAAV-retro for gene manipulations in multiple pathways that are interrupted after spinal cord injury. Experimental neurology, 350, 113965.

Krogager TP, et al. (2018) Labeling and identifying cell-specific proteomes in the mouse brain. Nature biotechnology, 36(2), 156.