Resource Summary Report

Generated by dkNET on Aug 30, 2026

pAAV-hSyn-DIO-rM3D(Gs)-mCherry

RRID:Addgene_50458
Type: Plasmid

Proper Citation

RRID:Addgene_50458

Plasmid Information

URL: http://www.addgene.org/50458

Proper Citation: RRID:Addgene_50458

Insert Name: rM3D-mCherry

Organism: Rattus norvegicus

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-rM3D(Gs)-mCherry

Relevant Mutation: See supplemental documents for DREADD mutations

Record Creation Time: 20220422T222258+0000

Record Last Update: 20260829T080632+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-hSyn-DIO-rM3D(Gs)-mCherry.

No alerts have been found for pAAV-hSyn-DIO-rM3D(Gs)-mCherry.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Barnett D, et al. (2025) Mitochondrial complex III-derived ROS amplify immunometabolic changes in astrocytes and promote dementia pathology. Nature metabolism, 7(11), 2300.

Barnett D, et al. (2024) Mitochondrial complex III-derived ROS amplify immunometabolic changes in astrocytes and promote dementia pathology. bioRxiv : the preprint server for biology.

Inaba H, et al. (2023) GPCR-mediated calcium and cAMP signaling determines psychosocial stress susceptibility and resiliency. Science advances, 9(14), eade5397.

Priest MF, et al. (2023) Peptidergic and functional delineation of the Edinger-Westphal nucleus. Cell reports, 42(8), 112992.

Licht-Murava A, et al. (2023) Astrocytic TDP-43 dysregulation impairs memory by modulating antiviral pathways and interferon-inducible chemokines. Science advances, 9(16), eade1282.

Park G, et al. (2023) l-Type amino acid transporter 1 in hypothalamic neurons in mice maintains energy and bone homeostasis. JCI insight, 8(7).

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

Zhang C, et al. (2022) A brainstem circuit for nausea suppression. Cell reports, 39(11), 110953.

Zhang T, et al. (2022) An inter-organ neural circuit for appetite suppression. Cell, 185(14), 2478.

Zhang C, et al. (2021) Area Postrema Cell Types that Mediate Nausea-Associated Behaviors. Neuron, 109(3), 461.

B??czyk M, et al. (2020) Synaptic restoration by cAMP/PKA drives activity-dependent neuroprotection to motoneurons in ALS. The Journal of experimental medicine, 217(8).

Pisansky MT, et al. (2017) Oxytocin enhances observational fear in mice. Nature communications, 8(1), 2102.