Resource Summary Report

Generated by kravitz2 on Jul 31, 2026

AAV-Flex-rev-oChIEF-tdTomato

RRID:Addgene_30541
Type: Plasmid

Proper Citation

RRID:Addgene_30541

Plasmid Information

URL: http://www.addgene.org/30541

Proper Citation: RRID:Addgene_30541

Insert Name: oChIEF-tdtomato

Organism: Chlamydomonas reinhardtii

Bacterial Resistance: Ampicillin

Defining Citation: PMID:21878344

Vector Backbone Description: Backbone Marker:Addgene plasmid 18917; Backbone Size:5079; Vector Backbone:AAV-FLEX-rev-ChR2-tdtomato; Vector Types:AAV, Cre/Lox; Bacterial Resistance:Ampicillin

Comments: Please note this plasmid has a I170V in channelopsin 1. The changed amino acid improves the protein???s function. To minimize recombination, propagate this plasmids in Stbl2 cells from Invitrogen. Also, to minimize recombination, cells should be cultured at 30 C. Note that these cultures will grow slowly (20 h for minipreps). Better yields and culture times are obtained with 2xYT as the media. This is strongly recommended. For more information on growth conditions, please see www.addgene.org/18917 as this is the backbone vector. Because recombination may still happen occasionally, we do a panel of restriction digestions to assess whether the ITRs are in tact. Separate digestions with PvuII, Sma1, and SnaB1 should be performed. The expected patterns can be calculated from the attached sequence. Please see Reviews in the right column for an image of Addgene's digest with these enzymes.

Plasmid Name: AAV-Flex-rev-oChIEF-tdTomato

Record Creation Time: 20220422T222134+0000

Record Last Update: 20260725T074538+0000

Ratings and Alerts

No rating or validation information has been found for AAV-Flex-rev-oChIEF-tdTomato.

No alerts have been found for AAV-Flex-rev-oChIEF-tdTomato.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 11 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Whitley JB, et al. (2025) GABAergic Projections from the Pretectum Boost Retinogeniculate Signal Transfer via Disinhibition. The Journal of neuroscience : the official journal of the Society for Neuroscience, 45(22).

Ding L, et al. (2022) Juxtacellular opto-tagging of hippocampal CA1 neurons in freely moving mice. eLife, 11.

Sokhadze G, et al. (2022) The organization of cholinergic projections in the visual thalamus of the mouse. The Journal of comparative neurology, 530(7), 1081.

Zhang J, et al. (2021) VEGFA165 gene therapy ameliorates blood-labyrinth barrier breakdown and hearing loss. JCI insight, 6(8).

Whyland KL, et al. (2020) GABAergic cell types in the superficial layers of the mouse superior colliculus. The Journal of comparative neurology, 528(2), 308.

Sokhadze G, et al. (2019) Postnatal development of cholinergic input to the thalamic reticular nucleus of the mouse. The European journal of neuroscience, 49(8), 978.

Zhou N, et al. (2018) The Mouse Pulvinar Nucleus Links the Lateral Extrastriate Cortex, Striatum, and Amygdala. The Journal of neuroscience : the official journal of the Society for Neuroscience, 38(2), 347.

Sokhadze G, et al. (2018) The absence of retinal input disrupts the development of cholinergic brainstem projections in the mouse dorsal lateral geniculate nucleus. Neural development, 13(1), 27.

Hass CA, et al. (2016) High-fidelity optical excitation of cortico-cortical projections at physiological frequencies. Journal of neurophysiology, 116(5), 2056.

Bickford ME, et al. (2015) Retinal and Tectal "Driver-Like" Inputs Converge in the Shell of the Mouse Dorsal Lateral Geniculate Nucleus. The Journal of neuroscience : the official journal of the Society for Neuroscience, 35(29), 10523.

Lin JY, et al. (2013) Production and validation of recombinant adeno-associated virus for channelrhodopsin expression in neurons. Methods in molecular biology (Clifton, N.J.), 998, 401.