Resource Summary Report

Generated by NIF on Aug 30, 2026

pLenti-CaMKIIa-hChR2(H134R)-EYFP-WPRE

RRID:Addgene_20944
Type: Plasmid

Proper Citation

RRID:Addgene_20944

Plasmid Information

URL: http://www.addgene.org/20944

Proper Citation: RRID:Addgene_20944

Insert Name: channelrhodopsin-2

Organism: C. reinhardtii

Bacterial Resistance: Ampicillin

Defining Citation: PMID:17410168

Vector Backbone Description: Backbone Size:9250; Vector Backbone:pLenti-CaMKIIa; Vector Types:Mammalian Expression, Lentiviral; Bacterial Resistance:Ampicillin

Comments: Please see http://www.optogenetics.org for additional information. H134R mutation present in the ChR2 sequence is a gain-of-function mutant that produces larger stationary photocurrents in comparison to the wild-type ChR2 sequence

Plasmid Name: pLenti-CaMKIIa-hChR2(H134R)-EYFP-WPRE

Relevant Mutation: H134R

Record Creation Time: 20220422T222053+0000

Record Last Update: 20260829T080200+0000

Ratings and Alerts

No rating or validation information has been found for pLenti-CaMKIIa-hChR2(H134R)-EYFP-WPRE.

No alerts have been found for pLenti-CaMKIIa-hChR2(H134R)-EYFP-WPRE.

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 .

Wu CW, et al. (2018) Modulation of motor excitability by cortical optogenetic theta burst stimulation. PloS one, 13(8), e0203333.

Pulizzi R, et al. (2016) Brief wide-field photostimuli evoke and modulate oscillatory reverberating activity in cortical networks. Scientific reports, 6, 24701.

Scheyltjens I, et al. (2015) Evaluation of the expression pattern of rAAV2/1, 2/5, 2/7, 2/8, and 2/9 serotypes with different promoters in the mouse visual cortex. The Journal of comparative neurology, 523(14), 2019.

Simpson MT, et al. (2015) The tumor suppressor HHEX inhibits axon growth when prematurely expressed in developing central nervous system neurons. Molecular and cellular neurosciences, 68, 272.

Gerits A, et al. (2015) Serotype-dependent transduction efficiencies of recombinant adeno-associated viral vectors in monkey neocortex. Neurophotonics, 2(3), 031209.

Kyung T, et al. (2015) Optogenetic control of endogenous Ca(2+) channels in vivo. Nature biotechnology, 33(10), 1092.

Krey JF, et al. (2013) Timothy syndrome is associated with activity-dependent dendritic retraction in rodent and human neurons. Nature neuroscience, 16(2), 201.