

Resource Summary Report

Generated by [RRID](#) on Aug 18, 2026

pAAV-CaMKIIa-eArch 3.0-EYFP

RRID:Addgene_35516

Type: Plasmid

Proper Citation

RRID:Addgene_35516

Plasmid Information

URL: <http://www.addgene.org/35516>

Proper Citation: RRID:Addgene_35516

Insert Name: Arch3.0-EYFP

Organism: H. sodomense

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:22179551](#)

Vector Backbone Description: Backbone Size:5379; Vector Backbone:pAAV; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

Comments: The enhanced trafficking signals allow for better membrane targeting in mammalian cells resulting in 3-5 fold increase in currents.

Plasmid Name: pAAV-CaMKIIa-eArch 3.0-EYFP

Relevant Mutation: Enhanced trafficking signal and ER export signal added

Record Creation Time: 20220422T222151+0000

Record Last Update: 20260815T081401+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-CaMKIIa-eArch 3.0-EYFP.

No alerts have been found for pAAV-CaMKIIa-eArch 3.0-EYFP.

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 [RRID](#) .

Xue S, et al. (2025) Implantable Light-Powered Human Designer Cells for Electrical Energy Generation. *Advanced materials* (Deerfield Beach, Fla.), 37(45), e02618.

Proskurina EY, et al. (2022) Optogenetic Low-Frequency Stimulation of Principal Neurons, but Not Parvalbumin-Positive Interneurons, Prevents Generation of Ictal Discharges in Rodent Entorhinal Cortex in an In Vitro 4-Aminopyridine Model. *International journal of molecular sciences*, 24(1).

Muroi Y, et al. (2022) Glutamatergic neurons from the medial prefrontal cortex to the dorsal raphe nucleus regulate maternal aggression in lactating mice. *Neuroscience research*, 183, 50.

Funken M, et al. (2020) Selective optogenetic stimulation of fibroblasts enables quantification of hetero-cellular coupling to cardiomyocytes in a three-dimensional model of heart tissue. *Europace : European pacing, arrhythmias, and cardiac electrophysiology : journal of the working groups on cardiac pacing, arrhythmias, and cardiac cellular electrophysiology of the European Society of Cardiology*, 22(10), 1590.

Antinucci P, et al. (2020) A calibrated optogenetic toolbox of stable zebrafish opsin lines. *eLife*, 9.

Zhu J, et al. (2020) Transient Delay-Period Activity of Agranular Insular Cortex Controls Working Memory Maintenance in Learning Novel Tasks. *Neuron*, 105(5), 934.

Cohen AE, et al. (2014) Measuring membrane voltage with microbial rhodopsins. *Methods in molecular biology* (Clifton, N.J.), 1071, 97.