

# Resource Summary Report

Generated by [RRID](#) on Aug 17, 2026

## AAV-EF1a-DIO-GCaMP6f-P2A-nls-dTomato

RRID:Addgene\_51083

Type: Plasmid

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### Proper Citation

RRID:Addgene\_51083

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### Plasmid Information

**URL:** <http://www.addgene.org/51083>

**Proper Citation:** RRID:Addgene\_51083

**Insert Name:** GCaMP6f

**Organism:** Synthetic

**Bacterial Resistance:** Ampicillin

**Vector Backbone Description:** Backbone Marker:custom; Backbone Size:5320; Vector Backbone:pAAV-EF1a-DIO-WPRE-BGHpA; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

**Comments:** The addition of the P2A-nls-dTomato allows for easy identification of GCaMP6 expressing cells exhibiting nuclear red fluorescence that does not significantly overlap with the cytosolic GCaMP signal. The GCaMP and fluorophore are physically uncoupled. Permissions were obtained from Douglas Kim and the Clontech licensing office for depositing this new plasmid.

**Plasmid Name:** AAV-EF1a-DIO-GCaMP6f-P2A-nls-dTomato

**Record Creation Time:** 20220422T222301+0000

**Record Last Update:** 20260815T081611+0000

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### Ratings and Alerts

No rating or validation information has been found for AAV-EF1a-DIO-GCaMP6f-P2A-nls-dTomato.

No alerts have been found for AAV-EF1a-DIO-GCaMP6f-P2A-nls-dTomato.

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### Data and Source Information

Source: [Addgene](#)

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## Usage and Citation Metrics

We found 10 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [RRID](#) .

Sun YH, et al. (2026) A humanized engineered heart tissue platform for cardiotoxicity assessment. Stem cell reports, 21(4), 102856.

Heimbach SN, et al. (2026) Temporal cortex astrocytic Gi-GPCR signaling regulates learned threat responses. bioRxiv : the preprint server for biology.

English A, et al. (2025) Behavioral Decoding Reveals Cortical Endocannabinoid Potentiation during ??9-THC Impairment. bioRxiv : the preprint server for biology.

Mindaye SA, et al. (2025) Longitudinal calcium imaging of BNST neurons in mice during optogenetic manipulation of paraventricular thalamus axon terminals. STAR protocols, 6(2), 103800.

Suh J, et al. (2025) Projection-specific roles of basolateral amygdala Thy1 neurons in alcohol-induced place preference. Molecular psychiatry.

Yokoyama R, et al. (2024) (R)-ketamine restores anterior insular cortex activity and cognitive deficits in social isolation-reared mice. Molecular psychiatry.

Zhang X, et al. (2021) Genetically identified amygdala-striatal circuits for valence-specific behaviors. Nature neuroscience, 24(11), 1586.

Kennard AS, et al. (2020) Osmolarity-independent electrical cues guide rapid response to injury in zebrafish epidermis. eLife, 9.

Botta P, et al. (2020) An Amygdala Circuit Mediates Experience-Dependent Momentary Arrests during Exploration. Cell, 183(3), 605.

Farhana I, et al. (2019) Genetically Encoded Fluorescence/Bioluminescence Bimodal Indicators for Ca<sup>2+</sup> Imaging. ACS sensors, 4(7), 1825.