

Resource Summary Report

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

CMV::ratSyGCaMP2

RRID:Addgene_26124

Type: Plasmid

Proper Citation

RRID:Addgene_26124

Plasmid Information

URL: <http://www.addgene.org/26124>

Proper Citation: RRID:Addgene_26124

Insert Name: Synaptophysin GCaMP2

Organism: Rattus norvegicus

Bacterial Resistance: Kanamycin

Defining Citation: [PMID:19898484](#)

Vector Backbone Description: Backbone Size:3957; Vector Backbone:pEGFP-N1 (Clontech); Vector Types:Mammalian Expression; Bacterial Resistance:Kanamycin

Comments: ORF frame 3 (624-2915): Rat SyGCaMP2. Our sequence with CMV-F shows a mutation S199T in Synaptophysin ORF. This change does not have any effect in localizing the construct to the synaptic vesicle and may be a result of a SNP.

Plasmid Name: CMV::ratSyGCaMP2

Record Creation Time: 20220422T222117+0000

Record Last Update: 20260815T081248+0000

Ratings and Alerts

No rating or validation information has been found for CMV::ratSyGCaMP2.

No alerts have been found for CMV::ratSyGCaMP2.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 10 mentions in open access literature.

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

Heck J, et al. (2019) Transient Confinement of CaV2.1 Ca²⁺-Channel Splice Variants Shapes Synaptic Short-Term Plasticity. *Neuron*, 103(1), 66.

Schwarz Y, et al. (2019) TRPC channels regulate Ca²⁺-signaling and short-term plasticity of fast glutamatergic synapses. *PLoS biology*, 17(9), e3000445.

Andres-Alonso M, et al. (2019) SIPA1L2 controls trafficking and local signaling of TrkB-containing amphisomes at presynaptic terminals. *Nature communications*, 10(1), 5448.

Servín-Morilla E, et al. (2018) Proteolytic Processing of Neurexins by Presenilins Sustains Synaptic Vesicle Release. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 38(4), 901.

Vaccaro V, et al. (2017) Miro1-dependent mitochondrial positioning drives the rescaling of presynaptic Ca²⁺ signals during homeostatic plasticity. *EMBO reports*, 18(2), 231.

Al Awabdh S, et al. (2016) Neuronal activity mediated regulation of glutamate transporter GLT-1 surface diffusion in rat astrocytes in dissociated and slice cultures. *Glia*, 64(7), 1252.

Hammond JW, et al. (2015) Platelet Activating Factor Enhances Synaptic Vesicle Exocytosis Via PKC, Elevated Intracellular Calcium, and Modulation of Synapsin 1 Dynamics and Phosphorylation. *Frontiers in cellular neuroscience*, 9, 505.

Stephen TL, et al. (2015) Miro1 Regulates Activity-Driven Positioning of Mitochondria within Astrocytic Processes Apposed to Synapses to Regulate Intracellular Calcium Signaling. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 35(48), 15996.

Herman MA, et al. (2014) Vesicular glutamate transporter expression level affects synaptic vesicle release probability at hippocampal synapses in culture. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 34(35), 11781.

Arancillo M, et al. (2013) Titration of Syntaxin1 in mammalian synapses reveals multiple roles in vesicle docking, priming, and release probability. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 33(42), 16698.