

Resource Summary Report

Generated by [RRID](#) on Aug 26, 2026

CMV Marina-T2A-nls-mCherry

RRID:Addgene_74216

Type: Plasmid

Proper Citation

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Plasmid Information

URL: <http://www.addgene.org/74216>

Proper Citation: RRID:Addgene_74216

Insert Name: fluorescent protein voltage sensor

Organism: Ciona intestinalis

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:28045247](#)

Vector Backbone Description: Backbone Size:4900; Vector Backbone:pCS2+; Vector Types:Mammalian Expression; Bacterial Resistance:Ampicillin

Comments: A portion of this plasmid was derived from a plasmid made by Dr. Atsushi Miyawaki, Laboratory for Cell Function Dynamics, Brain Science Institute, RIKEN, 2-1 Hirosawa, Saitama 351-0198, Japan.

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Relevant Mutation: Ci-VSP contains R217Q mutation; super ecliptic pHluorin contains D147A, H148A, Y200V and A227D mutations. These mutations cause depolarization-dependent increase in fluorescence intensity. We replaced residues 71-91 within CiVSD with an amino acid sequence (KSRITSEGEYIPLDQIDINV) from the Kir2.1 channel Golgi-to-plasma membrane trafficking signal. The Kir 2.1 channel ER export signal sequence (FCYENEV) was added to C-terminus of super ecliptic pHluorin.

Record Creation Time: 20220422T222453+0000

Record Last Update: 20260826T042551+0000

Ratings and Alerts

No rating or validation information has been found for CMV Marina-T2A-nls-mCherry.

No alerts have been found for CMV Marina-T2A-nls-mCherry.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Ferreira F, et al. (2025) Stretch-induced endogenous electric fields drive directed collective cell migration in vivo. Nature materials, 24(3), 462.