

Resource Summary Report

Generated by [kravitz2](#) on Jul 30, 2026

pCS2-Cas9

RRID:Addgene_47322

Type: Plasmid

Proper Citation

RRID:Addgene_47322

Plasmid Information

URL: <http://www.addgene.org/47322>

Proper Citation: RRID:Addgene_47322

Insert Name: Cas9

Organism: Other

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:24873830](#)

Vector Backbone Description: Backbone Size:4095; Vector Backbone:pCS2; Vector Types:Mammalian Expression, CRISPR, xenopus and zebrafish expression; Bacterial Resistance:Ampicillin

Comments: Please see the Schier lab website <http://labs.mcb.harvard.edu/schier/> for detailed protocols about target site selection, sgRNA production, stop codon cassette design, Cas9 protein purification, injection and downstream analysis. This plasmid was used to prepare and inject Cas9 mRNA into zebrafish zygotes.

Plasmid Name: pCS2-Cas9

Record Creation Time: 20220422T222244+0000

Record Last Update: 20260725T074741+0000

Ratings and Alerts

No rating or validation information has been found for pCS2-Cas9.

No alerts have been found for pCS2-Cas9.

Data and Source Information

Usage and Citation Metrics

We found 13 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Knoblich S, et al. (2025) Cloning-Free Targeting of Endogenous Loci to Generate Fluorescent Reporters in Medaka. Bio-protocol, 15(12), e5360.

Akiyama C, et al. (2025) Normal locomotion in zebrafish lacking the sodium channel NaV1.4 suggests that the need for muscle action potentials is not universal. PLoS biology, 23(4), e3003137.

Seleit A, et al. (2024) Modular control of vertebrate axis segmentation in time and space. The EMBO journal, 43(18), 4068.

Hatzold J, et al. (2023) Matriptase-dependent epidermal pre-neoplasm in zebrafish embryos caused by a combination of hypotonic stress and epithelial polarity defects. PLoS genetics, 19(8), e1010873.

Halabi R, et al. (2022) Semaphorin3f as a cardiomyocyte derived regulator of heart chamber development. Cell communication and signaling : CCS, 20(1), 126.

Blackwell DL, et al. (2022) Hnrnpul1 controls transcription, splicing, and modulates skeletal and limb development in vivo. G3 (Bethesda, Md.), 12(5).

Halabi R, et al. (2021) Semaphorin 3fa Controls Ocular Vascularization From the Embryo Through to the Adult. Investigative ophthalmology & visual science, 62(2), 21.

Seleit A, et al. (2021) Endogenous protein tagging in medaka using a simplified CRISPR/Cas9 knock-in approach. eLife, 10.

Jeong CB, et al. (2020) Generation of albino via SLC45a2 gene targeting by CRISPR/Cas9 in the marine medaka *Oryzias melastigma*. Marine pollution bulletin, 154, 111038.

Schwayer C, et al. (2019) Mechanosensation of Tight Junctions Depends on ZO-1 Phase Separation and Flow. Cell, 179(4), 937.

Ahmed HMM, et al. (2019) Improvement and use of CRISPR/Cas9 to engineer a sperm-marking strain for the invasive fruit pest *Drosophila suzukii*. BMC biotechnology, 19(1), 85.

Ashlin TG, et al. (2018) Pitpnc1a Regulates Zebrafish Sleep and Wake Behavior through Modulation of Insulin-like Growth Factor Signaling. Cell reports, 24(6), 1389.

Cioni JM, et al. (2018) Axon-Axon Interactions Regulate Topographic Optic Tract Sorting via CYFIP2-Dependent WAVE Complex Function. Neuron, 97(5), 1078.