

Resource Summary Report

Generated by [SPARC SAWG](#) on Aug 9, 2026

pCRISPR-Cas3

RRID:Addgene_209427

Type: Plasmid

Proper Citation

RRID:Addgene_209427

Plasmid Information

URL: <http://www.addgene.org/209427>

Proper Citation: RRID:Addgene_209427

Insert Name: codon optimized minimal type I-C CASCADE-Cas3 from *Pseudomonas aeruginosa*

Organism: Synthetic

Bacterial Resistance: Apramycin

Defining Citation: [PMID:40138716](#)

Vector Backbone Description: Vector Backbone:pGM1190; Vector Types:CRISPR, Synthetic Biology; Bacterial Resistance:Apramycin

Comments: Please visit <https://doi.org/10.1101/2023.05.09.539971> for bioRxiv preprint. The used type I-C CRISPR system was first described by: Csörg?, B., León, L.M., Chau-Ly, I.J. et al. A compact Cascade–Cas3 system for targeted genome engineering. *Nat Methods* 17, 1183–1190 (2020). <https://doi.org/10.1038/s41592-020-00980-w> Plasmid contains an IS prokaryotic transposable element that does not affect plasmid function. The sequences used in pCRISPR-Cas3 were obtained via gene synthesis following codon optimization for *S. coelicolor*.

Plasmid Name: pCRISPR-Cas3

Record Creation Time: 20240319T080538+0000

Record Last Update: 20260808T083018+0000

Ratings and Alerts

No rating or validation information has been found for pCRISPR-Cas3.

No alerts have been found for pCRISPR-Cas3.

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 [SPARC SAWG](#) .

Whitford CM, et al. (2025) CASCADE-Cas3 enables highly efficient genome engineering in *Streptomyces* species. *Nucleic acids research*, 53(6).