

Resource Summary Report

Generated by [RRID](#) on Aug 22, 2026

pgRNA-bacteria

RRID:Addgene_44251

Type: Plasmid

Proper Citation

RRID:Addgene_44251

Plasmid Information

URL: <http://www.addgene.org/44251>

Proper Citation: RRID:Addgene_44251

Insert Name: guide RNA (bacteria)

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23452860](#)

Vector Backbone Description: Vector Backbone:pUC19; Vector Types:Bacterial Expression, CRISPR; Bacterial Resistance:Ampicillin

Plasmid Name: pgRNA-bacteria

Record Creation Time: 20220422T222229+0000

Record Last Update: 20260815T081513+0000

Ratings and Alerts

No rating or validation information has been found for pgRNA-bacteria.

No alerts have been found for pgRNA-bacteria.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 73 mentions in open access literature.

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

Khan SA, et al. (2026) Development and Optimization of CRISPR/Cas9-Assisted Recombineering in *Escherichia albertii*. *microPublication biology*, 2026.

Choe D, et al. (2025) Rapid identification of key antibiotic resistance genes in *E. coli* using high-resolution genome-scale CRISPRi screening. *iScience*, 28(5), 112435.

Qiu T, et al. (2025) The Role of L-Sorbose Metabolism in Enhancing Fitness and Virulence in *Escherichia coli* Under Acidic Conditions. *Infection and drug resistance*, 18, 3071.

Lubrano P, et al. (2025) Metabolic mutations reduce antibiotic susceptibility of *E. coli* by pathway-specific bottlenecks. *Molecular systems biology*, 21(3), 274.

Choe D, et al. (2025) CRISPRi screening reveals *E. coli*'s anaerobic-like respiratory adaptations to gentamicin: membrane depolarization by CpxR. *mSystems*, 10(7), e0035325.

Ebrecht AC, et al. (2025) Use of Whole Cells and Cell-Free Extracts of Catalase-Deficient *E. coli* for Peroxygenase-Catalyzed Reactions. *Biotechnology and bioengineering*, 122(6), 1376.

Rodríguez-Alonso P, et al. (2025) Assessing the feasibility of CRISPRa approaches to enhance protein-based biomaterial expression in bacterial systems for more efficient production. *Materials today. Bio*, 32, 101720.

Wang P, et al. (2024) Combining CRISPR/Cas9 and natural excision for the precise and complete removal of mobile genetic elements in bacteria. *Applied and environmental microbiology*, 90(4), e0009524.

Yang Y, et al. (2024) Re-engineered guide RNA enables DNA loops and contacts modulating repression in *E. coli*. *Nucleic acids research*, 52(15), 9328.

Boob AG, et al. (2024) CRISPR-COPIES: an in silico platform for discovery of neutral integration sites for CRISPR/Cas-facilitated gene integration. *Nucleic acids research*, 52(6), e30.

Mayers JR, et al. (2024) A metabolomics pipeline highlights microbial metabolism in bloodstream infections. *Cell*, 187(15), 4095.

Mayers JR, et al. (2023) Identification and targeting of microbial putrescine acetylation in bloodstream infections. *bioRxiv : the preprint server for biology*.

Luelf UJ, et al. (2023) Effect of chromosomal integration on catalytic performance of a multi-component P450 system in *Escherichia coli*. *Biotechnology and bioengineering*, 120(7), 1762.

Zuberi A, et al. (2022) CRISPR Interference (CRISPRi) Mediated Suppression of *OmpR* Gene in *E. coli*: An Alternative Approach to Inhibit Biofilm. *Current microbiology*, 79(3), 78.

Heo YB, et al. (2022) High-Fidelity Cytosine Base Editing in a GC-Rich *Corynebacterium glutamicum* with Reduced DNA Off-Target Editing Effects. *Microbiology spectrum*, 10(6), e0376022.

Tsuji A, et al. (2022) Establishment of genetic tools for genomic DNA engineering of *Halomonas* sp. KM-1, a bacterium with potential for biochemical production. *Microbial cell factories*, 21(1), 122.

Yao S, et al. (2022) Efficient Suppression of Natural Plasmid-Borne Gene Expression in Carbapenem-Resistant *Klebsiella pneumoniae* Using a Compact CRISPR Interference System. *Antimicrobial agents and chemotherapy*, 66(11), e0089022.

Barber KW, et al. (2022) CasPlay provides a gRNA-barcoded CRISPR-based display platform for antibody repertoire profiling. *Cell reports methods*, 2(10), 100318.

Feng S, et al. (2022) MCR-1-dependent lipid remodelling compromises the viability of Gram-negative bacteria. *Emerging microbes & infections*, 11(1), 1236.

Ziegler M, et al. (2022) CRISPRi enables fast growth followed by stable aerobic pyruvate formation in *Escherichia coli* without auxotrophy. *Engineering in life sciences*, 22(2), 70.