

Resource Summary Report

Generated by [nidm-terms](#) on Aug 9, 2026

pcDNA-dCas9-VP64

RRID:Addgene_47107

Type: Plasmid

Proper Citation

RRID:Addgene_47107

Plasmid Information

URL: <http://www.addgene.org/47107>

Proper Citation: RRID:Addgene_47107

Insert Name: dCas9-VP64

Organism: S. Pyogenes

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23892895](#)

Vector Backbone Description: Backbone Marker:Invitrogen; Vector Backbone:pcDNA3.1; Vector Types:Mammalian Expression, CRISPR; Bacterial Resistance:Ampicillin

Plasmid Name: pcDNA-dCas9-VP64

Relevant Mutation: D10A, H840A (catalytically inactive)

Record Creation Time: 20220422T222242+0000

Record Last Update: 20260808T081728+0000

Ratings and Alerts

No rating or validation information has been found for pcDNA-dCas9-VP64.

No alerts have been found for pcDNA-dCas9-VP64.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 23 mentions in open access literature.

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

Pelea O, et al. (2025) Specific modulation of CRISPR transcriptional activators through RNA-sensing guide RNAs in mammalian cells and zebrafish embryos. *eLife*, 12.

Bamunuarachchi G, et al. (2025) Tankyrases positively regulate influenza A virus replication via type I interferon response. *Journal of virology*, 99(10), e0129825.

Ohtani H, et al. (2024) Efficient activation of hundreds of LTR12C elements reveals cis-regulatory function determined by distinct epigenetic mechanisms. *Nucleic acids research*, 52(14), 8205.

Huang H, et al. (2023) Epigenome editing based on CRISPR/dCas9p300 facilitates transdifferentiation of human fibroblasts into Leydig-like cells. *Experimental cell research*, 425(2), 113551.

Beyersdorf JP, et al. (2022) Robust, Durable Gene Activation In Vivo via mRNA-Encoded Activators. *ACS nano*, 16(4), 5660.

Rappaport JA, et al. (2022) A β -Catenin-TCF-Sensitive Locus Control Region Mediates GUCY2C Ligand Loss in Colorectal Cancer. *Cellular and molecular gastroenterology and hepatology*, 13(4), 1276.

Ren C, et al. (2022) Highly efficient activation of endogenous gene in grape using CRISPR/dCas9-based transcriptional activators. *Horticulture research*, 9.

Weuring WJ, et al. (2021) CRISPRa-Mediated Upregulation of *scn1laa* During Early Development Causes Epileptiform Activity and dCas9-Associated Toxicity. *The CRISPR journal*, 4(4), 575.

Mózsik L, et al. (2021) Modular Synthetic Biology Toolkit for Filamentous Fungi. *ACS synthetic biology*, 10(11), 2850.

Jain S, et al. (2021) TALEN outperforms Cas9 in editing heterochromatin target sites. *Nature communications*, 12(1), 606.

Gamboa L, et al. (2020) Heat-Triggered Remote Control of CRISPR-dCas9 for Tunable Transcriptional Modulation. *ACS chemical biology*, 15(2), 533.

Polkoff KM, et al. (2020) In Vitro Validation of Transgene Expression in Gene-Edited Pigs Using CRISPR Transcriptional Activators. *The CRISPR journal*, 3(5), 409.

Matharu N, et al. (2019) CRISPR-mediated activation of a promoter or enhancer rescues obesity caused by haploinsufficiency. *Science (New York, N.Y.)*, 363(6424).

Haenfler JM, et al. (2018) Targeted Reactivation of FMR1 Transcription in Fragile X Syndrome Embryonic Stem Cells. *Frontiers in molecular neuroscience*, 11, 282.

Pathak GP, et al. (2017) Bidirectional approaches for optogenetic regulation of gene expression in mammalian cells using Arabidopsis cryptochrome 2. *Nucleic acids research*, 45(20), e167.

Brown A, et al. (2017) Targeted Gene Activation Using RNA-Guided Nucleases. *Methods in molecular biology* (Clifton, N.J.), 1468, 235.

Bao Z, et al. (2017) Orthogonal Genetic Regulation in Human Cells Using Chemically Induced CRISPR/Cas9 Activators. *ACS synthetic biology*, 6(4), 686.

Jusiak B, et al. (2016) Engineering Synthetic Gene Circuits in Living Cells with CRISPR Technology. *Trends in biotechnology*, 34(7), 535.

Ji H, et al. (2016) Specific Reactivation of Latent HIV-1 by dCas9-SunTag-VP64-mediated Guide RNA Targeting the HIV-1 Promoter. *Molecular therapy : the journal of the American Society of Gene Therapy*, 24(3), 508.

Garcia-Bloj B, et al. (2016) Waking up dormant tumor suppressor genes with zinc fingers, TALEs and the CRISPR/dCas9 system. *Oncotarget*, 7(37), 60535.