

Resource Summary Report

Generated by [RRID](#) on Aug 18, 2026

[pMLM3705](#)

RRID:Addgene_47754

Type: Plasmid

Proper Citation

RRID:Addgene_47754

Plasmid Information

URL: <http://www.addgene.org/47754>

Proper Citation: RRID:Addgene_47754

Insert Name: codon optimized dCas9-VP64

Organism: Synthetic

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:23892898](#)

Vector Backbone Description: Backbone Marker:Joung lab (Addgene plasmid # 43861); Vector Backbone:pJDS246; Vector Types:Mammalian Expression, CRISPR; Bacterial Resistance:Ampicillin

Comments: Plasmid Features: Cas9 = 409-4512 NLS = 4519-4539 3X FLAG = 4546-4611 VP64 = 4633-4794

Plasmid Name: pMLM3705

Relevant Mutation: D10A and H840A mutations in Cas9 (catalytically inactive)

Record Creation Time: 20220422T222245+0000

Record Last Update: 20260815T081544+0000

Ratings and Alerts

No rating or validation information has been found for pMLM3705.

No alerts have been found for pMLM3705.

Data and Source Information

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Ekstrand F, et al. (2026) Nanopore Electroporation: A New Delivery Method Within the Field of Epigenetic Editing. *Small* (Weinheim an der Bergstrasse, Germany), 22(28), e13858.

Sarno F, et al. (2025) Epigenetic editing and epi-drugs: a combination strategy to simultaneously target KDM4 as a novel anticancer approach. *Clinical epigenetics*, 17(1), 105.

Wu DD, et al. (2023) Targeted epigenetic silencing of UCHL1 expression suppresses collagen-1 production in human lung epithelial cells. *Epigenetics*, 18(1), 2175522.

Machens F, et al. (2023) PhiReX 2.0: A Programmable and Red Light-Regulated CRISPR-dCas9 System for the Activation of Endogenous Genes in *Saccharomyces cerevisiae*. *ACS synthetic biology*, 12(4), 1046.

Sarno F, et al. (2022) Functional Validation of the Putative Oncogenic Activity of PLAU. *Biomedicines*, 11(1).

Tognoli ML, et al. (2021) RASSF1C oncogene elicits amoeboid invasion, cancer stemness, and extracellular vesicle release via a SRC/Rho axis. *The EMBO journal*, 40(20), e107680.

Hernández R, et al. (2021) Impact of the Epigenetically Regulated Hoxa-5 Gene in Neural Differentiation from Human Adipose-Derived Stem Cells. *Biology*, 10(8).

Gjaltema RAF, et al. (2020) KRAB-Induced Heterochromatin Effectively Silences PLOD2 Gene Expression in Somatic Cells and is Resilient to TGF β 1 Activation. *International journal of molecular sciences*, 21(10).

Baumann V, et al. (2019) Targeted removal of epigenetic barriers during transcriptional reprogramming. *Nature communications*, 10(1), 2119.

Lipinszki Z, et al. (2018) Enhancing the Translational Capacity of *E. coli* by Resolving the Codon Bias. *ACS synthetic biology*, 7(11), 2656.

Goubert D, et al. (2018) Establishment of Cell Lines Stably Expressing dCas9-Fusions to Address Kinetics of Epigenetic Editing. *Methods in molecular biology* (Clifton, N.J.), 1767, 395.

Machens F, et al. (2017) Synthetic Promoters and Transcription Factors for Heterologous Protein Expression in *Saccharomyces cerevisiae*. *Frontiers in bioengineering and biotechnology*, 5, 63.

Schwarz KA, et al. (2017) Rewiring human cellular input-output using modular extracellular sensors. *Nature chemical biology*, 13(2), 202.

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

Müller M, et al. (2016) *Streptococcus thermophilus* CRISPR-Cas9 Systems Enable Specific Editing of the Human Genome. *Molecular therapy : the journal of the American Society of Gene Therapy*, 24(3), 636.

Cano-Rodriguez D, et al. (2016) Writing of H3K4Me3 overcomes epigenetic silencing in a sustained but context-dependent manner. *Nature communications*, 7, 12284.

Shechner DM, et al. (2015) Multiplexable, locus-specific targeting of long RNAs with CRISPR-Display. *Nature methods*, 12(7), 664.

Makhlouf M, et al. (2014) A prominent and conserved role for YY1 in Xist transcriptional activation. *Nature communications*, 5, 4878.