# Resource Summary Report

Generated by dkNET on Aug 16, 2026

## pET28a/Cas9-Cys

RRID:Addgene_53261
Type: Plasmid

### Proper Citation

RRID:Addgene_53261

### Plasmid Information

**URL:** http://www.addgene.org/53261

**Proper Citation:** RRID:Addgene_53261

**Insert Name:** Cas9-Cys

**Organism:** S. pyogenes

**Bacterial Resistance:** Kanamycin

**Defining Citation:** PMID:24696462

**Vector Backbone Description:** Backbone Marker:Novagen; Backbone Size:5369; Vector Backbone:pET28a; Vector Types:Bacterial Expression; Bacterial Resistance:Kanamycin

**Comments:** A sequence encoding Cas9 with a cysteine at the C-terminus was prepared by PCR amplification using a previously described Cas9 plasmid (Cho et al, Nat Biotechnol. 2013)(Addgene: 43945) as the template and then cloned into the pET28-(a) vector (Novagen, Merk Millipore, Germany), which includes a sequence encoding a His-tag at the N-terminus.

**Plasmid Name:** pET28a/Cas9-Cys

**Relevant Mutation:** Additional Cysteine is added to the C-terminal region of Cas9

**Record Creation Time:** 20220422T222312+0000

**Record Last Update:** 20260815T081629+0000

### Ratings and Alerts

No rating or validation information has been found for pET28a/Cas9-Cys.

No alerts have been found for pET28a/Cas9-Cys.

## 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 dkNET .


Starke S, et al. (2024) The antifungal peptide AnAFP from Aspergillus niger promotes nutrient mobilization through autophagic recycling during asexual development. Frontiers in microbiology, 15, 1490293.

Egorova TV, et al. (2023) In-Frame Deletion of Dystrophin Exons 8-50 Results in DMD Phenotype. International journal of molecular sciences, 24(11).

Polikarpova AV, et al. (2023) CRISPR/Cas9-generated mouse model with humanizing single-base substitution in the Gnao1 for safety studies of RNA therapeutics. Frontiers in genome editing, 5, 1034720.

Lin Y, et al. (2023) Folate Receptor-Mediated Delivery of Cas9 RNP for Enhanced Immune Checkpoint Disruption in Cancer Cells. Small (Weinheim an der Bergstrasse, Germany), 19(2), e2205318.

Mirzazadeh Dizaji N, et al. (2022) Biomimetic Mineralization of Iron-Fumarate Nanoparticles for Protective Encapsulation and Intracellular Delivery of Proteins. Chemistry of materials : a publication of the American Chemical Society, 34(19), 8684.

Won EJ, et al. (2021) One-shot dual gene editing for drug-resistant pancreatic cancer therapy. Biomaterials, 279, 121252.

Gangoso E, et al. (2021) Glioblastomas acquire myeloid-affiliated transcriptional programs via epigenetic immunoediting to elicit immune evasion. Cell, 184(9), 2454.

Cui H, et al. (2021) Carrier-Free Cellular Transport of CRISPR/Cas9 Ribonucleoprotein for Genome Editing by Cold Atmospheric Plasma. Biology, 10(10).

Hirschenberger M, et al. (2021) CRISPA: A Non-viral, Transient Cas9 Delivery System Based on Reengineered Anthrax Toxin. Frontiers in pharmacology, 12, 770283.

Manzano I, et al. (2021) Purification of Cas9-RNA complexes by ultrafiltration. Biotechnology progress, 37(2), e3104.

M??zsik L, et al. (2021) CRISPR-based transcriptional activation tool for silent genes in filamentous fungi. Scientific reports, 11(1), 1118.

Ali Z, et al. (2020) Fusion of the Cas9 endonuclease and the VirD2 relaxase facilitates homology-directed repair for precise genome engineering in rice. Communications biology, 3(1), 44.

Kuhn J, et al. (2020) Delivery of Cas9/sgRNA Ribonucleoprotein Complexes via Hydroxystearyl Oligoamino Amides. Bioconjugate chemistry, 31(3), 729.

Wang X, et al. (2020) Clustered Regularly Interspaced Short Palindromic Repeats/Cas9-Mediated Lateral Flow Nucleic Acid Assay. ACS nano, 14(2), 2497.

Forsberg KJ, et al. (2019) Functional metagenomics-guided discovery of potent Cas9 inhibitors in the human microbiome. eLife, 8.

Egorova TV, et al. (2019) CRISPR/Cas9-generated mouse model of Duchenne muscular dystrophy recapitulating a newly identified large 430 kb deletion in the human DMD gene. Disease models & mechanisms, 12(4).

Kwon MJ, et al. (2019) Practical guidance for the implementation of the CRISPR genome editing tool in filamentous fungi. Fungal biology and biotechnology, 6, 15.

Chaverra-Rodriguez D, et al. (2018) Targeted delivery of CRISPR-Cas9 ribonucleoprotein into arthropod ovaries for heritable germline gene editing. Nature communications, 9(1), 3008.

Zhou W, et al. (2018) A CRISPR-Cas9-triggered strand displacement amplification method for ultrasensitive DNA detection. Nature communications, 9(1), 5012.

Dewari PS, et al. (2018) An efficient and scalable pipeline for epitope tagging in mammalian stem cells using Cas9 ribonucleoprotein. eLife, 7.