

Resource Summary Report

Generated by [NIF](#) on Jul 31, 2026

pKD3

RRID:Addgene_45604

Type: Plasmid

Proper Citation

RRID:Addgene_45604

Plasmid Information

URL: <http://www.addgene.org/45604>

Proper Citation: RRID:Addgene_45604

Insert Name: FRT-cat-FRT

Bacterial Resistance: Chloramphenicol and Ampicillin

Defining Citation: [PMID:10829079](#)

Vector Backbone Description: Backbone Marker:M. Koob (University of Wisconsin, Madison); Vector Backbone:pANTS?; Vector Types:Bacterial Expression; Bacterial Resistance:Chloramphenicol and Ampicillin

Comments: This is a template plasmids for frt-flanked cat cassette. The cat cassette originally came from pSC140. pKD3 and pKD4 are identical except for the region between the FRT sites, so they create an identical scar that has stop codons in all six reading frames. As drawn in the map, this scar has an idealized ribosome binding site and start codon for downstream (rightward) gene expression.

Plasmid Name: pKD3

Record Creation Time: 20220422T222235+0000

Record Last Update: 20260725T074727+0000

Ratings and Alerts

No rating or validation information has been found for pKD3.

No alerts have been found for pKD3.

Data and Source Information

Usage and Citation Metrics

We found 20 mentions in open access literature.

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

Orsi E, et al. (2025) Computation-aided designs enable developing auxotrophic metabolic sensors for wide-range glyoxylate and glycolate detection. *Nature communications*, 16(1), 2168.

Huang H, et al. (2025) Tetrahymena predation drives adaptive evolution of Salmonella by disrupting O-antigen biosynthesis and upregulating transcriptional regulator csgD. *The ISME journal*, 19(1).

Mathieu-Denoncourt A, et al. (2025) The carRS-ompV-virK operon of *Vibrio cholerae* senses antimicrobial peptides and activates the expression of multiple resistance systems. *Scientific reports*, 15(1), 13686.

Yeap HW, et al. (2025) A bacterial network of T3SS effectors counteracts host pro-inflammatory responses and cell death to promote infection. *The EMBO journal*, 44(9), 2424.

Fijalkowski I, et al. (2024) Proteins à la carte: riboproteogenomic exploration of bacterial N-terminal proteoform expression. *mBio*, 15(4), e0033324.

Schulz-Mirbach H, et al. (2024) New-to-nature CO₂-dependent acetyl-CoA assimilation enabled by an engineered B12-dependent acyl-CoA mutase. *Nature communications*, 15(1), 10235.

Yap ZL, et al. (2024) A CRISPR-Cas-associated transposon system for genome editing in *Burkholderia cepacia* complex species. *Applied and environmental microbiology*, 90(7), e0069924.

Pavankumar TL, et al. (2024) Trans-complementation by the RecB nuclease domain of RecBCD enzyme reveals new insight into RecA loading upon ? recognition. *Nucleic acids research*, 52(5), 2578.

Mehlhoff JD, et al. (2023) Genes Vary Greatly in Their Propensity for Collateral Fitness Effects of Mutations. *Molecular biology and evolution*, 40(3).

Schulz-Mirbach H, et al. (2022) On the flexibility of the cellular amination network in *E. coli*. *eLife*, 11.

Erttmann SF, et al. (2022) The gut microbiota prime systemic antiviral immunity via the cGAS-STING-IFN-I axis. *Immunity*, 55(5), 847.

Walch P, et al. (2021) Global mapping of *Salmonella enterica*-host protein-protein interactions during infection. *Cell host & microbe*, 29(8), 1316.

- Ting SY, et al. (2020) Targeted Depletion of Bacteria from Mixed Populations by Programmable Adhesion with Antagonistic Competitor Cells. *Cell host & microbe*, 28(2), 313.
- Durie CL, et al. (2020) Structural analysis of the *Legionella pneumophila* Dot/Icm type IV secretion system core complex. *eLife*, 9.
- Ragheb MN, et al. (2019) Inhibiting the Evolution of Antibiotic Resistance. *Molecular cell*, 73(1), 157.
- Guevara-Martínez M, et al. (2019) The role of the acyl-CoA thioesterase "YciA" in the production of (R)-3-hydroxybutyrate by recombinant *Escherichia coli*. *Applied microbiology and biotechnology*, 103(9), 3693.
- Warr AR, et al. (2019) Transposon-insertion sequencing screens unveil requirements for EHEC growth and intestinal colonization. *PLoS pathogens*, 15(8), e1007652.
- Perez-Zabaleta M, et al. (2019) Comparison of engineered *Escherichia coli* AF1000 and BL21 strains for (R)-3-hydroxybutyrate production in fed-batch cultivation. *Applied microbiology and biotechnology*, 103(14), 5627.
- Xue H, et al. (2016) Genetic Modification in Human Pluripotent Stem Cells by Homologous Recombination and CRISPR/Cas9 System. *Methods in molecular biology* (Clifton, N.J.), 1307, 173.
- Li S, et al. (2015) Efficient generation of hiPSC neural lineage specific knockin reporters using the CRISPR/Cas9 and Cas9 double nickase system. *Journal of visualized experiments : JoVE*(99), e52539.