

Resource Summary Report

Generated by [dkNET](#) on Aug 25, 2026

pKD4

RRID:Addgene_45605

Type: Plasmid

Proper Citation

RRID:Addgene_45605

Plasmid Information

URL: <http://www.addgene.org/45605>

Proper Citation: RRID:Addgene_45605

Insert Name: FRT-kan-FRT

Bacterial Resistance: Ampicillin and Kanamycin

Defining Citation: [PMID:10829079](#)

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

Comments: This is a template plasmids for frt-flanked kan cassette. The kan cassette originally came from pCP15. 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: pKD4

Record Creation Time: 20220422T222235+0000

Record Last Update: 20260815T081525+0000

Ratings and Alerts

No rating or validation information has been found for pKD4.

No alerts have been found for pKD4.

Data and Source Information

Usage and Citation Metrics

We found 28 mentions in open access literature.

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

Diaz-Del-Olmo I, et al. (2026) Salmonella effector SteE reprograms the macrophage regulatory network to drive specific hyperactivation of STAT3 target genes. *Molecular cell*, 86(10), 1979.

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.

Parada CM, et al. (2025) Growth-dependent concentration gradient of the oscillating Min system in *Escherichia coli*. *The Journal of cell biology*, 224(2).

Ross TD, et al. (2025) Metabolic interplay drives population cycles in a cross-feeding microbial community. *Nature communications*, 16(1), 8919.

Yiakoumetti A, et al. (2025) The generation game: Toward the generational genetic stability of continuous culture. *iScience*, 28(3), 111787.

Toh JYL, et al. (2024) Sequential infection of human norovirus and *Salmonella enterica* resulted in higher mortality and ACOD1/IRG1 upregulation in zebrafish larvae. *Microbes and infection*, 26(1-2), 105229.

Schulz-Mirbach H, et al. (2024) Engineering new-to-nature biochemical conversions by combining fermentative metabolism with respiratory modules. *Nature communications*, 15(1), 6725.

Cannarsa MC, et al. (2024) Light-driven synchronization of optogenetic clocks. *eLife*, 13.

Campbell IW, et al. (2023) Quantitative dose-response analysis untangles host bottlenecks to enteric infection. *Nature communications*, 14(1), 456.

Amselem E, et al. (2023) Real-time single-molecule 3D tracking in *E. coli* based on cross-entropy minimization. *Nature communications*, 14(1), 1336.

Hamblin M, et al. (2023) *Salmonella enterica* serovar Typhi uses two type 3 secretion systems to replicate in human macrophages and colonize humanized mice. *mBio*, 14(4), e0113723.

Gibbs KD, et al. (2023) Human variation impacting MCOLN2 restricts *Salmonella* Typhi replication by magnesium deprivation. *Cell genomics*, 3(5), 100290.

Lettl C, et al. (2023) Selective killing of the human gastric pathogen *Helicobacter pylori* by mitochondrial respiratory complex I inhibitors. *Cell chemical biology*, 30(5), 499.

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

Kamruzzaman M, et al. (2022) A Novel Plasmid Entry Exclusion System in pKPC_UVA01, a Promiscuous Conjugative Plasmid Carrying the blaKPC Carbapenemase Gene. *Antimicrobial agents and chemotherapy*, 66(3), e0232221.

Metelev M, et al. (2022) Direct measurements of mRNA translation kinetics in living cells. *Nature communications*, 13(1), 1852.

Sato W, et al. (2022) Akaby-Cell-free protein expression system for linear templates. *PloS one*, 17(4), e0266272.

Rousset F, et al. (2022) Phages and their satellites encode hotspots of antiviral systems. *Cell host & microbe*, 30(5), 740.

Han HM, et al. (2021) Overproduction of Exopolysaccharide Colanic Acid by *Escherichia coli* by Strain Engineering and Media Optimization. *Applied biochemistry and biotechnology*, 193(1), 111.

Doore SM, et al. (2021) Large metabolic rewiring from small genomic changes between strains of *Shigella flexneri*. *Journal of bacteriology*, 203(11).