Resource Summary Report

Generated by RRID on Aug 19, 2026

Cas9-NAT

RRID:Addgene_64329
Type: Plasmid

Proper Citation

RRID:Addgene_64329

Plasmid Information

URL: http://www.addgene.org/64329

Proper Citation: RRID:Addgene_64329

Insert Name: Human-optimized S. pyogenes Cas9 with Clonnat marker gene expression cassette

Bacterial Resistance: Ampicillin

Defining Citation: PMID:25281382

Vector Backbone Description: Backbone Marker:George Church lab (Addgene Plasmid #43802); Backbone Size:9232; Vector Backbone:pRS414-TEF1p-Cas9-CYC1t; Vector Types:Yeast Expression, CRISPR; Bacterial Resistance:Ampicillin

Plasmid Name: Cas9-NAT

Record Creation Time: 20220422T222408+0000

Record Last Update: 20260815T081810+0000

Ratings and Alerts

No rating or validation information has been found for Cas9-NAT.

No alerts have been found for Cas9-NAT.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 17 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID .

Heneghan PG, et al. (2025) Ancient origin and high diversity of zymocin-like killer toxins in the budding yeast subphylum. Proceedings of the National Academy of Sciences of the United States of America, 122(7), e2419860122.

Shin J, et al. (2024) Compositional and temporal division of labor modulates mixed sugar fermentation by an engineered yeast consortium. Nature communications, 15(1), 781.

Salzberg LI, et al. (2022) A widespread inversion polymorphism conserved among Saccharomyces species is caused by recurrent homogenization of a sporulation gene family. PLoS genetics, 18(11), e1010525.

Kwak S, et al. (2022) Dissection and enhancement of prebiotic properties of yeast cell wall oligosaccharides through metabolic engineering. Biomaterials, 282, 121379.

Lee YG, et al. (2022) Selective production of retinol by engineered Saccharomyces cerevisiae through the expression of retinol dehydrogenase. Biotechnology and bioengineering, 119(2), 399.

Hassell DS, et al. (2021) Chemical rescue of mutant proteins in living Saccharomyces cerevisiae cells by naturally occurring small molecules. G3 (Bethesda, Md.), 11(9).

Sun L, et al. (2021) Complete and efficient conversion of plant cell wall hemicellulose into high-value bioproducts by engineered yeast. Nature communications, 12(1), 4975.

Lim SH, et al. (2021) CRISPRi-Guided Metabolic Flux Engineering for Enhanced Protopanaxadiol Production in Saccharomyces cerevisiae. International journal of molecular sciences, 22(21).

Sun L, et al. (2020) High-level ??-carotene production from xylose by engineered Saccharomyces cerevisiae without overexpression of a truncated HMG1 (tHMG1). Biotechnology and bioengineering, 117(11), 3522.

Wasserman MR, et al. (2019) Replication Fork Activation Is Enabled by a Single-Stranded DNA Gate in CMG Helicase. Cell, 178(3), 600.

Tang R, et al. (2019) Identification and characterization of novel xylose isomerases from a Bos taurus fecal metagenome. Applied microbiology and biotechnology, 103(23-24), 9465.

Zhang MM, et al. (2019) Enhanced acetic acid stress tolerance and ethanol production in Saccharomyces cerevisiae by modulating expression of the de novo purine biosynthesis genes. Biotechnology for biofuels, 12, 116.

Sun L, et al. (2019) Vitamin A Production by Engineered Saccharomyces cerevisiae from Xylose via Two-Phase in Situ Extraction. ACS synthetic biology, 8(9), 2131.

Wei LJ, et al. (2018) Improved squalene production through increasing lipid contents in Saccharomyces cerevisiae. Biotechnology and bioengineering, 115(7), 1793.

Kwak S, et al. (2017) Enhanced isoprenoid production from xylose by engineered Saccharomyces cerevisiae. Biotechnology and bioengineering, 114(11), 2581.

Barbieri EM, et al. (2017) Precise Editing at DNA Replication Forks Enables Multiplex Genome Engineering in Eukaryotes. Cell, 171(6), 1453.

Liu JJ, et al. (2016) Metabolic Engineering of Probiotic Saccharomyces boulardii. Applied and environmental microbiology, 82(8), 2280.