

Resource Summary Report

Generated by [NIF](#) on Aug 3, 2026

pRosa26-DEST

RRID:Addgene_21189

Type: Plasmid

Proper Citation

RRID:Addgene_21189

Plasmid Information

URL: <http://www.addgene.org/21189>

Proper Citation: RRID:Addgene_21189

Insert Name: GateWay conversion cassette

Bacterial Resistance: Chloramphenicol and Ampicillin

Defining Citation: [PMID:19014667](#)

Vector Backbone Description: Backbone Size:14820; Vector Backbone:pRosa26-PA; Vector Types:Mammalian Expression; Bacterial Resistance:Chloramphenicol and Ampicillin

Comments: pRosa26-DEST was made by inserting a GateWay conversion cassette into the XhoI site of pBigT, followed by transfer of PacI / AscI fragment of the resulting vector to the pRosa26-PA vector (see <http://www.biomedcentral.com/1471-213X/1/4> for details on these vectors). The resulting vector resembles the construct that was used for the R26R Cre reporter mouse made by Phil Soriano in which the expression of lacZ is coupled to the endogenous Rosa26 locus via a splice acceptor site, but only after removal of the lox-STOP-lox cassette (which is actually the neo-R cassette used during the targeting). The only thing changed from the pBigT vectors and the R26R reporter is the cloning strategy, so the resulting knock-in should be as good as these systems, and as good (or as bad) as the use of the Rosa26 locus in any situation. Stbl3 cells are advisable to use after users have done the LR recombination reaction. See http://www.hgu.mrc.ac.uk/people/n.hastie_rosa.html for more information and protocols for this plasmid. Further advice from the depositing lab: "Grow single colonies in Amp + Cam at 30 C, definitively not 37. Including the Cam should ensure that spontaneous recombinants that loose the Gateway cassette don't survive... - Do minipreps and test with the double digest PacI / AscI. This should give 4.9 kb + 9.8 kb. If this is okay, the vector should be okay" Please note that there are discrepancies between Addgene's quality control sequence and the theoretical sequence supplied by the depositing lab. These discrepancies should not affect the function of the construct.

Plasmid Name: pRosa26-DEST

Record Creation Time: 20220422T222054+0000

Record Last Update: 20260801T081003+0000

Ratings and Alerts

No rating or validation information has been found for pRosa26-DEST.

No alerts have been found for pRosa26-DEST.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Goto A, et al. (2025) PI3K-Akt signalling regulates Scx-lineage tenocytes and Tppp3-lineage paratenon sheath cells in neonatal tendon regeneration. Nature communications, 16(1), 3734.

Rafnsdottir S, et al. (2024) SMYD5 is a regulator of the mild hypothermia response. Cell reports, 43(8), 114554.

Marom R, et al. (2024) The IFITM5 mutation in osteogenesis imperfecta type V is associated with an ERK/SOX9-dependent osteoprogenitor differentiation defect. The Journal of clinical investigation, 134(15).

Rafnsdottir S, et al. (2023) SMYD5 is a novel epigenetic gatekeeper of the mild hypothermia response. bioRxiv : the preprint server for biology.

Onuchic L, et al. (2023) The C-terminal tail of polycystin-1 suppresses cystic disease in a mitochondrial enzyme-dependent fashion. Nature communications, 14(1), 1790.

Saito Y, et al. (2022) Enhancement of pacing function by HCN4 overexpression in human pluripotent stem cell-derived cardiomyocytes. Stem cell research & therapy, 13(1), 141.

Ozawa M, et al. (2022) Efficient simultaneous double DNA knock-in in murine embryonic stem cells by CRISPR/Cas9 ribonucleoprotein-mediated circular plasmid targeting for generating gene-manipulated mice. Scientific reports, 12(1), 21558.

Taguchi J, et al. (2021) DMRT1-mediated reprogramming drives development of cancer resembling human germ cell tumors with features of totipotency. Nature communications, 12(1), 5041.

Baba M, et al. (2019) TFE3 Xp11.2 Translocation Renal Cell Carcinoma Mouse Model Reveals Novel Therapeutic Targets and Identifies GPNMB as a Diagnostic Marker for Human Disease. *Molecular cancer research : MCR*, 17(8), 1613.

Weber J, et al. (2019) PiggyBac transposon tools for recessive screening identify B-cell lymphoma drivers in mice. *Nature communications*, 10(1), 1415.

Wei Y, et al. (2018) Mast Cell-Specific Expression of Human Siglec-8 in Conditional Knock-in Mice. *International journal of molecular sciences*, 20(1).

Bolisetty S, et al. (2016) Proximal tubule-targeted heme oxygenase-1 in cisplatin-induced acute kidney injury. *American journal of physiology. Renal physiology*, 310(5), F385.

Schultz MJ, et al. (2016) The Tumor-Associated Glycosyltransferase ST6Gal-I Regulates Stem Cell Transcription Factors and Confers a Cancer Stem Cell Phenotype. *Cancer research*, 76(13), 3978.

Dharmadhikari AV, et al. (2016) Lethal lung hypoplasia and vascular defects in mice with conditional Foxf1 overexpression. *Biology open*, 5(11), 1595.

Carofino BL, et al. (2015) Tissue-Specific Regulation of Oncogene Expression Using Cre-Inducible ROSA26 Knock-In Transgenic Mice. *Current protocols in mouse biology*, 5(2), 187.

Carofino BL, et al. (2013) A mouse model for inducible overexpression of Prdm14 results in rapid-onset and highly penetrant T-cell acute lymphoblastic leukemia (T-ALL). *Disease models & mechanisms*, 6(6), 1494.

O'Connor AK, et al. (2013) An inducible CiliaGFP mouse model for in vivo visualization and analysis of cilia in live tissue. *Cilia*, 2(1), 8.

Chakraborty S, et al. (2013) A robust strategy for negative selection of Cre-loxP recombination-based excision of transgenes in induced pluripotent stem cells. *PLoS one*, 8(5), e64342.