Resource Summary Report

Generated by NIF on Sep 3, 2026

pDR-GFPuniv

RRID:Addgene_46085
Type: Plasmid

Proper Citation

RRID:Addgene_46085

Plasmid Information

URL: http://www.addgene.org/46085

Proper Citation: RRID:Addgene_46085

Insert Name: DR-GFPuniv reporter

Bacterial Resistance: Ampicillin

Defining Citation: PMID:22121229

Vector Backbone Description: Backbone Marker:Jasin Lab (Addgene Plasmid# 26475); Vector Backbone:pDR-GFP; Vector Types:Mammalian Expression, recombination reporter plasmid; Bacterial Resistance:Ampicillin

Comments: Description: Plasmid for in vivo recombination assays. Based on the original pDR-GFP plasmid described in Pierce et al. GenDev (1999) v13p2633. Use data: Recipient plasmid for (homing) endonuclease target sites in order to assess in vivo activity of an endonuclease. The plasmid contains two non-functional copies of the eGFP gene: the 5’ copy is interrupted by the target site of interest and stop codons; the 3’ copy is truncated on both 5’- and 3’-end. pDR-GFP as is does not fulfill any other purpose than to receive (homing) endonuclease target sites. The recognition site for the endonuclease of interest must be cloned into the XhoI/SacI sites in the upstream eGFP gene, thus obliterating the XhoI, KpnI and SacI sites. Successful cleavage of the cloned target site generates a DSB. This triggers in vivo a homologous recombination event with the 3’ truncated copy of the eGFP which renders the 5’ copy functional. The activity of a given endonuclease can be measured by the number of GFP+ cells generated. The site that is cloned into pDR-GFP must insert a frameshift into the 5’ eGFP-copy and/or contain a stop codon in frame with the upstream sequence of the eGFP gene to assure that the ORF is not functional and no eGFP can be synthesized prior to the DSB repair event. In order to easily screen for the successful insertion of the oligonucleotide pair representing the site of interest, it is useful to integrate a restriction site that is not present in pDR-GFPuniv (e.g. a PvuII site). Sample oligonucleotide pair: oligo1 5’-TCGATAGGGATAACAGGGTAATACAGCTGTAAGCT-3’ oligo2 3’-

ATCCCTATTGTCCCATTATGTCGACAT -5’ Please note that this plasmid functions as described in the associated publication and according to the depositing laboratory the changes to the EGFP sequence are not a concern.

Plasmid Name: pDR-GFPuniv

Relevant Mutation: E5G and K163R mutations in EGFP relative to wild-type. EGFP truncated after amino acid 163

Record Creation Time: 20220422T222238+0000

Record Last Update: 20260902T045526+0000

Ratings and Alerts

No rating or validation information has been found for pDR-GFPuniv.

No alerts have been found for pDR-GFPuniv.

Data and Source Information

Source: Addgene

Usage and Citation Metrics

We found 3 mentions in open access literature.

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

Criscuolo D, et al. (2026) CCDC6 Immunostaining in Conjunction with the Rad51 HRD Assay May Expand PARPi Treatment Eligibility in Patients with HGSOC. Cancer research communications, 6(1), 201.

Li D, et al. (2019) NF-?B and Poly (ADP-ribose) Polymerase 1 Form a Positive Feedback Loop that Regulates DNA Repair in Acute Myeloid Leukemia Cells. Molecular cancer research : MCR, 17(3), 761.

Cánovas B, et al. (2018) Targeting p38? Increases DNA Damage, Chromosome Instability, and the Anti-tumoral Response to Taxanes in Breast Cancer Cells. Cancer cell, 33(6), 1094.