# Resource Summary Report

Generated by dkNET on Aug 20, 2026

## pDMS197

RRID:Addgene_43831
Type: Plasmid

### Proper Citation

RRID:Addgene_43831

### Plasmid Information

**URL:** http://www.addgene.org/43831

**Proper Citation:** RRID:Addgene_43831

**Bacterial Resistance:** Tetracycline

**Defining Citation:** PMID:9511756

**Vector Backbone Description:** Backbone Marker:Addgene plasmid 43829; Backbone Size:5173; Vector Backbone:pRE107 (modified from pGP704); Vector Types:Bacterial Expression, Bacterial allelic exchange vector with sacB1; Bacterial Resistance:Tetracycline

**Comments:** The plasmids deposited here comprise a set of SacB1-dependent allelic exchange vectors improved from a previously described suicide vector, pGP704 (Miller and Mekalanos, 1988), by including a system to select for plasmid loss by recombination. Plasmid pRE107 (Addgene plasmid #43829) was constructed by cloning the appropriate EcoRI fragment from pUC58-sacB1 (McIver et al., 1995) into pGP704 (see associated schematic image). The sacB1 allele is a modified variation of sacB, where unique restriction sites were removed by site directed mutagenesis (McIver et al., 1995). Additionally, the BamHI site in the R6K ori of the resulting plasmid was removed by partial BamHI digestion, blunting the resulting overhangs with PolIk (resulting in the formation of a ClaI site) and screening for its loss by restriction analysis. To use this plasmid with bla fusions and increase the functionality of this system, the depositing laboratory replaced the ApR gene as follows. The ApR gene flanked by the remaining BamHI sites was removed and replaced with either CmR, TcR or KmR resistance markers (see associated schematic image). The TcR gene was cloned on a blunted EcoRI–StyI fragment from pBR322 into the blunted BamHI sites to give pDMS197. The BamHI site near the MCS was regenerated after cloning; the BamHI site near the 5' end of TcR/TetR was not. The resulting plasmid together with others in this deposited series contain the conditional R6K ori, the origin of transfer (oriT) which allows conjugative transfer from permissive hosts, the sacB1 gene to provide negative selection and a MCS, along with a range of different

AbR markers. Moreover, the use of Tc also allows an alternative negative selection using fusaric acid and chlortetracycline as described previously (Maloy and Nunn, 1981).

**Plasmid Name:** pDMS197

**Record Creation Time:** 20220422T222227+0000

**Record Last Update:** 20260815T081510+0000

## Ratings and Alerts

No rating or validation information has been found for pDMS197.

No alerts have been found for pDMS197.

## Data and Source Information

**Source:** Addgene

## Usage and Citation Metrics

We have not found any literature mentions for this resource.