

Resource Summary Report

Generated by [RRID](#) on Aug 21, 2026

[pRE107](#)

RRID:Addgene_43829

Type: Plasmid

Proper Citation

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Plasmid Information

URL: <http://www.addgene.org/43829>

Proper Citation: RRID:Addgene_43829

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:9511756](#)

Vector Backbone Description: Backbone Marker:John Mekalanos lab, Harvard Medical School (PMID: 2836362); Backbone Size:5720; Vector Backbone:pGP704; Vector Types:Bacterial Expression, Bacterial allelic exchange vector with sacB1; Bacterial Resistance:Ampicillin

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 was constructed by cloning the appropriate EcoRI fragment from pUC58-sacB1 (Mclver 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 (Mclver 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 Pollk (resulting in the formation of a ClaI site) and screening for its loss by restriction analysis. 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. Note: Addgene's NGS results found that a large portion of the plasmid backbone (containing the oriT feature) is in the opposite orientation compared to the depositor's reference sequence.

Plasmid Name: pRE107

Record Creation Time: 20220422T222227+0000

Record Last Update: 20260815T081510+0000

Ratings and Alerts

No rating or validation information has been found for pRE107.

No alerts have been found for pRE107.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

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

Rudenko O, et al. (2023) Transforming the untransformable with knockout minicircles: High-efficiency transformation and vector-free allelic exchange knockout in the fish pathogen *Photobacterium damsela*. *MicrobiologyOpen*, 12(4), e1374.