

## Product Information

### **TargetTron® Vector pAR1219**

Catalog Number **T2076**

Storage Temperature  $-20^{\circ}\text{C}$

#### **Product Description**

Plasmid pAR1219 is a pBR322-based vector that expresses T7 RNA Polymerase under control of the IPTG-inducible *lac* UV5 promoter<sup>1</sup> and is intended for use with the TargetTron Gene Knockout System, Catalog Number TA0100. Many TargetTron system plasmids use the T7 promoter for intron expression. By co-transforming plasmid pAR1219 with the TargetTron pACD4 plasmids, the T7 promoter can be used to express the intron and disrupt chromosomal genes in alternative hosts such as *Salmonella typhimurium*<sup>2</sup> and *Shigella flexneri*.<sup>2</sup> Additionally, chromosomal gene disruptions in non-DE3 strains of *E. coli* can also be performed using pAR1219 with the pACD4 intron expression plasmids.

Ampicillin, at 50  $\mu\text{g}/\text{ml}$ , is used to select for pAR1219. To use pAR1219 in conjunction with the pACD4 plasmids, simply co-transform both plasmids and select in a liquid medium containing:

50  $\mu\text{g}/\text{ml}$  ampicillin, 25  $\mu\text{g}/\text{ml}$  chloramphenicol, and 1% glucose. Glucose is typically included to provide additional suppression of the *lac* UV5 promoter prior to IPTG-induction.

For detailed TargetTron gene disruption protocols, see the latest User Guide for the TargetTron Gene Knockout System, Catalog Number TA0100, at [www.sigma-aldrich.com](http://www.sigma-aldrich.com).

#### **Reagents**

Supplied at 100  $\mu\text{g}/\text{ml}$  in 10 mM Tris-HCl, pH 8.0, with 1 mM EDTA.

#### **Precautions/Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### **Storage**

Store at  $-20^{\circ}\text{C}$ . Shipped on wet ice.

#### **References**

1. Davanloo, P., *et al.*, *Proc. Natl. Acad. Sci. USA.*, **81**, 2035-2039 (1984).
2. Karberg, M., *Nat. Biotechnol.*, **19**, 1162-1167 (2001).

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