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## Product Information

### TargeTron<sup>™</sup> Vector pAR1219

Product Number T 2076

Storage Temperature -20 °C

## TECHNICAL BULLETIN

### 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 TargeTron<sup>™</sup> Gene Knockout System (Product Number TA0100). Many TargeTron system plasmids use the T7 promoter for intron expression. By co-transforming plasmid pAR1219 with the TargeTron 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 (50 µg/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 ampicillin (50 µg/ml), chloramphenicol (25 µg/ml), and 1% glucose. Glucose is typically included to provide additional suppression of the *lac* UV5 promoter prior to IPTG-induction. For detailed TargeTron gene disruption protocols, see the latest User Guide for the TargeTron Gene Knockout System (Product Number TA0100, [www.sigma-aldrich.com/targetron](http://www.sigma-aldrich.com/targetron)).

### Reagents

The TargeTron<sup>™</sup> Vector pAR1219 (100 ng/ml) is supplied 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

This product ships on wet ice and storage at -20 °C is recommended.

### References

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

GD,ND,MAM 09/05-1

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