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Product Information

TargeTron® Vector pAR1219

Catalog Number **T2076**
Storage Temperature –20 °C

Product Description

Plasmid pAR1219 is a pBR322-based vector that expresses T7 RNA Polymerase under control of the IPTG-inducible *lac* UV5 promoter[1] and is intended for use with the TargeTron Gene Knockout System, Catalog 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*[2] and *Shigella flexneri*.[2] 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 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:
50 µg/ml ampicillin, 25 µg/ml chloramphenicol, 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, Catalog Number TA0100, at www.sigma-aldrich.com.

Reagents

Supplied at 100 µg/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 °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).

License Agreement

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Academic and Non-Profit Laboratory Assurance Letter
The T7 system is based on technology developed at Brookhaven National Laboratory under contract with the U.S. Department of Energy and is the subject of U.S. Patent No. 5,693,489 (expiration date, December 2, 2014) assigned to Brookhaven Science Associates, LLC. (BSA). BSA will grant a nonexclusive license for the use of this technology, including the enclosed material, based upon the following assurances:

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2. No materials that contain the cloned copy of T7 gene 1 , the gene for T7 RNA polymerase, may be distributed further to third parties outside of your laboratory, unless the recipient receives a copy of this license and agrees to be bound by its terms. This limitation applies to strains of BL21(DE3), BL21(DE3)pLysS, and BL21(DE3)pLysE, and any derivatives.

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