



pMR103

87117™

Product Sheet

Description

Organism: *Escherichia coli* (Migula) Castellani and Chalmers

Clone type: Vector

Host: *Escherichia coli* JM101 (ATCC 33876)

Storage Conditions

Product format: Frozen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Insert Information

Insert size (kb): 1

Type of DNA: genomic

Genome: Escherichia coli

Gene name: lactose repressor

Gene product: lactose repressor [lacI]

Gene symbol: lacI

Contains complete coding sequence: Yes

Vector Information

Construct size (kb): 5.0999999904632568

Intact vector size: 4.100

Vector name: pMR102

Type of vector: phagemid

Construction: pMR101; pMR102, pET11d

Host range: *Escherichia coli*

Vector end: Sall; PstI

Vector information: Other unique sites: EcoNI, Sall, BstEII, PstI

Cloning sites: NcoI; BamHI

Markers: kanR

Operator: lac, <-, 3784-3800

Promoters: T7 (phi10), <-, 3804-3823

Replicon: M13, →, 11-467; p15A, →, 1585-1588

Repressor gene: lacI

Growth Conditions

Medium:

ATCC Medium 1236: LB Medium (ATCC medium 1065) with 25 mcg/ml kanamycin

Temperature: 37°C

Notes

Restriction digests of the clone give the following sizes (kb): PstI/Sall--5.2; PstI--5.2; Sall--uncut; EcoRV--3.2, 2.0; BstEII--3.6, 1.6; BstEII/PstI--3.0, 1.7, 0.5. The Sall site was lost during cloning.

- ATCC staff

Expression vector (T7-based) with a kanR marker and a P15A replicon compatible with ColE1-derived plasmids. Particularly useful for co-transformation with ColE1-based ampR T7 expression vectors and the production of two proteins in the same cell.

- Gene 144: 59-62, 1994

If used in an Escherichia coli strain that expresses T7 polymerase under the control of the lacUV5 promoter (such as BL21(DE3)), addition of IPTG can result in high levels of recombinant protein production.

- Gene 144: 59-62, 1994

The lacI gene permits tight regulation of transcription of an insert and synthesis of potentially toxic proteins.

- Gene 144: 59-62, 1994

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pMR103 (ATCC 87117)

References

References and other information relating to this material are available at www.atcc.org.

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