



# pMR103

## 87117™

Product Sheet

### Description

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

**Clone type:** Vector

**Host:** *Escherichia coli* JM101 (ATCC 33876)

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### Storage Conditions

**Product format:** Frozen

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### 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.

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### 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.

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### Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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### 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

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### 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

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### Growth Conditions

**Medium:**

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

**Temperature:** 37°C

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## 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 promotor (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

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## Material Citation

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

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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## Revision

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