pMR103

87117™

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): 5.099999904632568
Intact vector size: 4.100
Vector name: pMR102
Type of vector: phagemid
Construction: pMR101; pMR102, pET11d
Host range: *Escherichia coli*
Vector end: SalI; PstI
Vector information: Other unique sites: EcoNI, SalI, 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/SalI--5.2; PstI--5.2; SalI--uncut; EcoRV--3.2, 2.0; BstEII--3.6, 1.6; BstEII/PstI--3.0, 1.7, 0.5. The SalI 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

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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