pBAD18-Cm

87396™

Description

One of several tightly controlled expression vectors (ATCC 87393 - ATCC 87402) regulated by the arabinose operon. Vectors differ in replicon, antibiotic resistance marker, multiple cloning sites and need for translation initiation sequences. Cultures should be grown in minimal media for more reproducible induction of expression. Expression is induced in glycerol containing media by addition of arabinose. Expression is repressed by addition of glucose or other catabolites. Cloned inserts must provide a translation initiation sequence (ATG) and ribosome binding site for expression. Plasmid contains bla (ampR) sequences surrounding the cmLR gene which could promote recombination if this plasmid is used in combination with other compatible ampR plasmids. Recombination can be avoided by the use of recA host strains, or it can be used to advantage to intentionally exchange markers among plasmids. The following primers can be used for sequencing of cloned inserts: 5' primer (27 - 8 bp upstream of the NheI site) 5' CTGTTTCTCCATACCCGTT 3'; and one of two 3' primers: 3' primer 1 (2-19 bp downstream of the HindIII site) 5' CTCATCCGCCAAAACAG 3'; 3' primer 2 (17-33 bp downstream of the HindIII site) 5' GGCTGAAAATCTTCTCT 3'.

Clone type: Vector

Shipping information: *Escherichia coli* containing the plasmid

Storage Conditions

Product format: Frozen

Storage conditions: -70°C or colder

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

Target gene: arabinose regulator

Vector Information

Construct size (kb): 6.03
Vector name: pBAD18-Cm (phagemid)
Type of vector: phagemid
Construction: pBAD18, cmlR (pACYC184)
Vector information:
other: CAP site
Markers: araC; cmlR; ampR

MCS: NheI...HindIII
Operator: I2 + I1; O1; O2
Promoters: araC; arabinose BAD
Regulator: araC
Replicon: M13; pMB1
Terminator: rrnB T1 + T2
Transcription terminator: rrnB T1; rrnB T2

Growth Conditions

Medium:
ATCC Medium 1675: LB Agar/Broth (1065) w/ 10ug/ml Chloramphenicol
Temperature: 37°C

Handling Procedures

Thaw frozen vial. Transfer 100 *u*L to a test tube containing 5 mL LB+10mg/mL of chloramphenicol. A loopful of culture can also be streaked on an LB + chl agar plate. Incubate cultures at 37^0 C. Isolate DNA using standard plasmid preparation procedures.

Notes

Restriction digests of the vector gave the following sizes (in kb): EcoRI 3.8, 2.3; HindIII 6.0 ; PstI 5.0, 1.1. ATCC Staff

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pBAD18-Cm (ATCC 87396)

References

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

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Revision

This information on this document was last updated on 2024-10-25

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