pBAD18-Kan

87397™

Description

Clone type: Vector
Host: *Escherichia coli* DH5α
Shipping information: *Escherichia coli* containing the plasmid

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

Target gene: arabinose regulator

Vector Information

Intact vector size: 5.437
Type of vector: phagemid
Construction: pBAD18, kanR (pUC4K)
Vector information:
other; CAP site, 4454-4467
Cloning sites: NheI; EcoRI; SacI; KpnI; XbaI; SalI; PstI; SphI
Markers: araC; kanR
MCS: NheI...HindIII, ->, 4550-4612
Operator: O2, 4253-4270; O1, 4411-4432; I2 + I1, 4463-4501
Polylinker sites: NheI; EcoRI; SacI; KpnI; SmaI; BamHI; XbaI; SalI; AccI; PstI; SphI; HindIII
Regulator: araC, ←, 3346-4224
Replicon: M13, 1417-1875; pMB1, 1881-2578

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): EcoRI--5.4; HindIII--3.9, 1.5; PstI--5.4.

- ATCC staff

One of several tightly controlled expression vectors (ATCC 87393-87402) regulated by the arabinose operon. The vectors differ in replicon, antibiotic resistance marker, multiple cloning site and mechanism of initiation of translation.
- J. Bacteriol. 177: 4121-4130, 1995

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.
- J. Bacteriol. 177: 4121-4130, 1995

Cloned inserts must provide a translation initiation sequence (ATG) and ribosome binding site for expression.
- J. Bacteriol. 177: 4121-4130, 1995

Plasmid contains bla (ampR) sequences surrounding the kanR gene which could promoter recombination if this plasmid is used in combination with other compatible ampR plasmids.
- J. Bacteriol. 177: 4121-4130, 1995

Recombination can be avoided by the use of recA host strains, or it can be used to advantage to intentionally exchange markers among plasmids.
- J. Bacteriol. 177: 4121-4130, 1995

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';
- J. Bacteriol. 177: 4121-4130, 1995

3' primer 2 (17 - 33 bp downstream of the HindIII site) 5'-GGCTGAAAATCTTCTCT-3'.
- J. Bacteriol. 177: 4121-4130, 1995

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pBAD18-Kan (ATCC 87397)

References

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

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