pBAD33 phagemid in *E. coli* DH5alpha

87402™

Description

pBAD33 is a low copy number expression vector regulated by the arabinose operon. It is useful when reduced gene expression is desired.

Clone type: Vector

Host: *Escherichia coli* DH5α

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.

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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.

Insert Information

Target gene: arabinose regulator

Vector Information

Intact vector size: 5.356
Type of vector: phagemid
Construction: pBAD28
Vector information:
other: CAP site, 4560-4573
Cloning sites: SacI; KpnI; SmaI; XbaI; SalI; PstI; SphI; HindIII
Markers: araC; cmlR
MCS: NheI...HindIII, ->, 4656-4718
Operator: O2, 4359-4376; O1, 4517-4538; I2 + I1, 4569-4607
Regulator: araC, <-, 3452-4330
Replicon: M13, 335-793; p15A, 2369-3213

Growth Conditions

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

Notes

Restriction digests of the clone give the following sizes (kb): AvaI--3.0, 1.3, 1.2; BamHI--5.4; EcoRI--2.95, 2.6.

- 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

Plasmid copy number is low due to the p15A replicon. This vector can be used when reduced gene expression is desirable.
- J. Bacteriol. 177: 4121-4130, 1995

Plasmid is compatible with pBR-derived plasmids and may be used for coexpression of cloned inserts.
- J. Bacteriol. 177: 4121-4130, 1995

Plasmid contains bla (ampR) sequences following the rrnB terminator 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: pBAD33 phagemid in *E. coli* DH5alpha (ATCC 87402)

References

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

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Contact Information

ATCC
10801 University Boulevard
Manassas, VA 20110-2209
USA
US telephone: 800-638-6597
Worldwide telephone: +1-703-365-2700
Email: tech@atcc.org or contact your local distributor