



pBAD24 in *E. coli*

87399™

Description

pBAD24 phagemid in *Escherichia coli* DH5 alpha

One of several tightly controlled expression vectors (ATCC 87393-87402) regulated by the arabinose operon. Vectors differ in replicon, antibiotic resistance marker, multiple cloning site 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. Vector contains an optimized Shine-Dalgarno ribosome binding site, translation initiation codon and Kozak sequence (relevant for expression in eukaryotic cells) which promote a high level of expression of cloned inserts. The following primers can be used for sequencing of cloned inserts: 5' primer (27 - 45 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'. Restriction digests of the construct gave the following bands (in bp): EcoRI - 4.4; BamHI - 4.3, 0.1; Aval - 1.8, 1.65, 1.2.

-ATCC

Clone type: Vector

Shipping information: *Escherichia coli* containing the plasmid in glycerol stock

Storage Conditions

Product format: Frozen

Storage conditions: -80°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): 4.54

Vector name: pBAD24

Construction: pBAD22

Vector information:

other: CAP site

other: Kozak sequence

Initiation codon: ATG

Markers: araC; ampR

MCS: NheI...HindIII

Operator: I₂ + I₁; O₁; O₂

Promoters: araC; bla (ampR); arabinose BAD

Regulator: araC

Replicon: M13; pMB1

Ribosome-binding site: Shine-Dalgarno sequence

Terminator: rrnB T1 + T2

Transcription terminator: rrnB T2, <-, 4263-4340; rrnB T1, <-, 4422-4465

Growth Conditions

Medium:

ATCC Medium 1227: LB Medium (ATCC medium 1065) with 50 mcg/ml ampicillin

Temperature: 37°C

Handling Procedures

Transfer a loopful to a test tube containing 5 mL LB+50 µg/mL of ampicillin broth. A loopful of culture can also be streaked on an LB + amp agar plate. Incubate cultures at 37°C. Isolate DNA using standard plasmid preparation procedures.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pBAD24 in *E. coli* (ATCC 87399)

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