



Product Sheet

## pBAD33 (ATCC® 87402™)

Please read this FIRST



### Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: pBAD33 (ATCC® 87402™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

### Description

**Designation:** pBAD33  
**Distribution Host:** *Escherichia coli* DH5alpha

### Propagation

**Growth Conditions**  
**Temperature:** 37°C  
**Medium**  
ATCC® Medium 1675: LB medium (ATCC medium 1065) with 10 mcg/ml Chloramphenicol

### Vector Information

**Intact vector size:** 5.356  
**Type of vector:** phagemid  
**Cloning sites:** SacI KpnI SmaI XbaI SalI PstI SphI HindIII  
**Polylinker sites:** NheI EcoRI SacI KpnI SmaI BamHI XbaI SalI AccI PstI SphI HindIII  
**Construction:** pBAD28  
**Host range:** *Escherichia coli*  
**Features (with orientation and position when available):**  
**regulator:** araC, <-, 3452-4330  
**operator:** O2, 4359-4376  
**promoter:** araC, <-, 4481-4509  
**operator:** O1, 4517-4538  
**other:** CAP site, 4560-4573  
**operator:** I2 + I1, 4569-4607  
**promoter for expression:** arabinose BAD, ->, 4606-4633  
**MCS:** NheI...HindIII, ->, 4656-4718  
**transcription terminator:** rrnB T1 + T2, ->, 4719-5144  
**replicon:** M13, 335-793  
**marker(s):** cmLR, <-, 1348-2007  
**replicon:** p15A, 2369-3213  
**Marker(s):** cmIR,araC

### References

References and other information relating to this product are available online at [www.atcc.org](http://www.atcc.org).

### Notes

Restriction digests of the clone give the following sizes (kb): Aval--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



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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'-CTCATCCGCCAAACAG-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



### Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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### ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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### Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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