ATCC

Product Sheet

Bacillus subtilis/*E. coli* expression vectors (ATCC® 87056™)

Please read this FIRST

Storage Temp.
-80°C or colder

Biosafety Level
1

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: *(ATCC® 87056™)*

Shipping Information

Products are shipped as frozen vials of E. coli containing the plasmid

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

This is a set of two vectors permitting expression in both B. subtilis and E. coli from the vegII promoter. One is a shuttle vector, pRB374, ATCC 77374) and one permits the cloning of translational signals based on the production of lacZ (pRB382, ATCC 77378).
Designation: *Bacillus subtilis/E. coli expression vectors*

Vector Information

ATCC® NUMBER: 77374™
Designation: *pRB374 plasmid in E. coli*
Description: *This is a Bacillus subtilis/E. coli shuttle expression vector containing the Bacillus subtilis promoter vegII which can initiate transcription in both strains. Structural stability of the plasmid in B. subtilis can be affected by high levels of protein production. Under these conditions, cell growth and stability may be improved by reducing the antibiotic concentration in the media. It may not be suitable for cloning very strong expression signals. NeoR confers resistance to neomycin and kanamycin and ble confers resistance to bleomycin and phleomycin. - Gene 122: 187-192, 1992.*

Vector type: *plasmid*
Total size of construct (kb): *5.9*
Markers: *ampR, neoR, bleR*
Cloning sites: *EcoRI SacI KpnI SmaI BamHI XbaI SalI AccI PstI SphI HindIII*
Construction: *pUB110, pBR322, vegII*
Promoter: *vegII (B. subtilis)*
Terminator: *rrnB*
Replicons: *pMB1, pUB110*

Host range: *Bacillus subtilis ; Escherichia coli*
Distribution host: *Escherichia coli HB101*
Notes:
Restriction digests of the clone gave the following sizes (in kb): EcoRI - 5.9 ; BamHI - 5.9 ; BglI/BglII - 3.5, 2.4.
-ATCC Staff

ATCC® NUMBER: 77378™
Designation: *pRB382 plasmid in E. coli*
Description: *This is a Bacillus subtilis/E. coli shuttle expression vector containing the Bacillus subtilis promoter vegII which can initiate transcription in both strains. The 5' truncated lacZ gene, lacking transcriptional and translational initiation signals, is useful in both E. coli and in B. subtilis, since the endogenous beta-galactosidase level in B. subtilis is low. Structural stability of the plasmid in B. subtilis can be affected by high levels of protein production. Under these conditions, cell growth and stability may be improved by reducing the antibiotic concentration in the media. It may not be suitable for cloning very strong expression signals. NeoR confers resistance to neomycin and kanamycin and ble confers resistance to bleomycin and phleomycin. - Gene 122: 187-192, 1992.*

Vector type: *plasmid*
Total size of construct (kb): *8.9*
Markers: *ampR, neoR, bleR*
Cloning sites: *EcoRI SacI KpnI SmaI BamHI XbaI SalI AccI PstI SphI HindIII*
Construction: *pUB110, pBR322, vegII, lacZ*
Promoter: *vegII (B. subtilis)*
Terminator: *rrnB*
Replicons: *pMB1, pUB110*

Host range: *Bacillus subtilis ; Escherichia coli*
Distribution host: *Escherichia coli HB101*
Notes:
Restriction digests of the vector gave the following sizes (in kb): BamHI - 9.5 ; EcoRI/BglI - 5.1, 2.2, 1.1, 0.8 ; BglI/BglII - 3.5, 2.2, 2.0, 1.4.
-ATCC Staff

Propagation

1. *Open vial according to instructions.*

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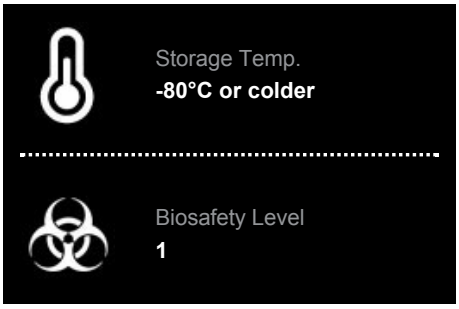

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2. *Aseptically add 0.3 to 0.4 ml of liquid medium to the freeze-dried pellet and mix well. Transfer 100 µL to a test tube containing 5 mL LB+ ampicillin (50-100 µg/mL). A loopful of culture can also be streaked on an agar plate of the same. Incubate cultures at 37°C.*
3. *Isolate DNA using standard plasmid preparation procedures.*

References

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

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.

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.

Disclaimers

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

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

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

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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