



Product Sheet

# pKS3 [KS334] (ATCC® 53583™)

## Escherichia coli

### Please read this FIRST



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: *Escherichia coli* (ATCC® 53583™)

### Shipping Information

Distributed: freeze-dried

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: pKS3 [KS334]

### Notes

Restriction digests of the clone give the following sizes (kb): BamHI--uncut; EcoRI--4.4, 1.55, 0.35; PstI--6.0; HindIII--6.0.  
- ATCC staff

pKS3 encodes a Tsr-alkaline phosphatase chimeric protein, with Tsr being N-terminal and anchoring the protein in the membrane. The alkaline phosphatase portion is exposed in the periplasm and retains activity. If the chimeric protein is degraded by proteases, the alkaline phosphatase becomes soluble in the periplasm and retains activity. The host chromosome contains an insertional inactivated gene for the periplasmic protease htrA (degP), and thus shows reduced protease activity and increased stability of periplasmic proteins.

- Proc. Natl. Acad. Sci. USA 85: 1576-1580, 1988

.patent

### Distributed In

Distribution host: *Escherichia coli* KS334

### Insert Information

DNA: genomic

DESCRIPTION OF INSERT COMPONENT:

Genome: *Escherichia coli*

Gene symbol: phoA

Gene name: alkaline phosphatase

Contains complete coding sequence?: U

Localization: 9 min

Genome: *Escherichia coli*

Gene symbol: tsr

Gene name: methyl-accepting chemotaxis protein I (inner membrane protein)

Contains complete coding sequence?: U

Type of DNA: genomic

Insert end:

Insert end:

Insert size (kb):

Cross references:

Gene product: methyl-accepting chemotaxis protein I (inner membrane protein) [tsr]

Target Gene: methyl-accepting chemotaxis protein I (inner membrane protein)

### Vector Information

Construct size (kb): 6.0

DESCRIPTION OF VECTOR COMPONENT:

Name of vector: pBR322

Intact vector size: 4.363

Type of vector: plasmid

Cloning sites: EcoRI ClaI HindIII EcoRV BamHI SphI SalI XmaIII NruI BspMI

BsmI StyI Aval Ball BspMII PvuII Tth111I NdeI AflIII PpaI

PstI PvuI Scal SspI AatII

Polylinker sites:

Construction: pBR313

Host range: *Escherichia coli*

Features (with orientation and position when available):

marker(s): tetR

replicon: pMB1



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marker(s): ampR

Cross references: DNA Seq. Acc.: J01749

### Propagation

#### Growth Conditions

**Temperature:** 30.0°C

#### Medium

ATCC® Medium 1896: 1065 plus ampicillin (100 mcg/ml) and XP (40 mcg/ml)

### References

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

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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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