



# pRS316 phagemid in *Escherichia coli* HB101

77145™

## Description

This is one of a series of pBluescript-based YC-type (centromeric) yeast shuttle vectors (ATCC 77142-77145) differing in the yeast selectable marker gene. It encodes the beta galactosidase alpha peptide for blue-white color detection of inserts and also has the T7 and T3 promoters for in vitro RNA synthesis and priming sites for sequencing. It is useful in plasmid shuffling experiments. It was constructed by inserting a 1.112 kb fragment containing the URA3 gene into the NdeI site of the pRSS56 vector and also inserting a cassette containing CEN6 and the ARS associated with histone 4 (ARSH4) into the AatII site of the same vector. All ends were blunted. The pRSS56 vector was constructed by ligating a PvuI fragment (bp 498-2412) of pBluescript KS+ and the fragment from the unique NdeI and AatII sites between bla and f1 origin of pBS(+). The order of the major features in this plasmid is: URA3 ? f1 ori (NaeI) ? T7 promoter ? lacZ?/MCS ? T3 promoter ? pMB1 ori ? bla ? CEN6 ? ARSH4.

**Clone type:** Vector

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

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -80°C or colder

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## 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

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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](http://www.atcc.org).

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## Vector Information

**Construct size (kb):** 4.895

**Vector name:** pRS316 (phagemid)

**Construction:** pRSS56 [pBluescript KS+, pBS(+)]

**Centromere:** CEN6

**Insert detection:** lacZ'

**Markers:** ampR; URA3

**MCS:** SacI...KpnI

**Promoters:** *In vitro* transcription T7; lac

**Replicon:** ARSH4; f1; pMB1

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## Growth Conditions

### Medium:

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

**Temperature:** 37°C

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## Notes

Restriction digests of the clone gave the following sizes (in kb): BamHI 5.0; EcoRI 5.0; PvuII 4.4, 0.5. ATCC Staff

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pRS316 phagemid in *Escherichia coli* HB101 (ATCC 77145)

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## References

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

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## Revision

This information on this document was last updated on 2026-02-18

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