



pRS315 phagemid in *Escherichia coli* HB101

77144™

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. This vector carries the LEU2 selectable marker. It also 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 2.235 kb fragment containing the LEU2 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: LEU2 ? f1 ori (NaeI) ? T7 promoter ? lacZ?/MCS ? T3 promoter ? pMB1 ori ? bla ? CEN6 ? ARSH4.

Clone type: Vector

Shipping information: *Escherichia coli* containing the phagemid

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.

Vector Information

Construct size (kb): 6.018

Vector name: pRS315 (phagemid)

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

Centromere: CEN6

Insert detection: lacZ'

Markers: LEU2; ampR

MCS: SacI...KpnI

Promoters: *In vitro* transcription T7

Replicon: ARSH4; f1; pMB1

Growth Conditions

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Medium:

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

Temperature: 37°C

Notes

Restriction digests of the clone gave the following sizes (in kb): BamHI 6.0; EcoRI 3.9, 2.1; HindIII 6.0 ; KpnI 4.3, 1.7 ; KpnI/EcoRI 4.1, 1.5, 0.4. ATCC Staff

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pRS315 phagemid in *Escherichia coli* HB101 (ATCC 77144)

References

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

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Product Sheet

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