



# pRS401 plasmid in *E. coli*

87473™

Product Sheet

## Description

**Clone type:** Vector

**Host:** *Escherichia coli* HB101 (ATCC 33694)

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## Storage Conditions

**Product format:** Frozen

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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.

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## 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.

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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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## Insert Information

**Target gene:** O-acetylhomoserine sulfhydrylase

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## Vector Information

**Construct size (kb):** 4.893

**Intact vector size:** 4.893

**Vector name:** pRS401 (phagemid)

**Type of vector:** phagemid

**Construction:** pJK142

**Host range:** *Saccharomyces cerevisiae*; *Escherichia coli*

**Cloning sites:** SacI; BstXI; SacII; EagI; NotI; SpeI; BamHI; SmaI; PstI; ClaI; Sall; XhoI; ApaI; KpnI

**Coding sequence:** lacZ', <-, 2317-2676; lacZ'

**Markers:** MET15; ampR

**MCS:** KpnI...SacI, ->, 2513-2619

**Polylinker sites:** SacI; BstXI; SacII; EagI; NotI; XbaI; SpeI; BamHI; SmaI; PstI; EcoRI; EcoRV; HindIII; ClaI; Sall; XhoI; ApaI; KpnI

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

**Replicon:** f1, ←, 1860-2316; pMB1, 3075-3075

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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 give the following sizes (kb): BamHI--4.9;  
EcoRI--3.2, 1.7; XbaI--2.9, 2.0.

- ATCC staff

MET15, MET17 and MET25 are synonymous.

- SGD

met15 phenotype produces brown colonies when grown on Pb containing media.

- Yeast 14: 115-132, 1998

pRS401 can be used to generate a gene specific MET15 marker gene disruption cassette for tranformation in gene knockout experiments.

- Yeast 14: 115-132, 1998

This requires two approx. 60nt PCR primers; the 20nts of sequence at the 3' ends of each primer is specific for amplifying the MET15 gene from pRS401, and the 40nts of sequence at the 5' ends matches the genomic sequences flanking the gene of interest.

- Yeast 14: 115-132, 1998

The 20nt PCR primer sequences for generating the MET15 marker from pRS401 are:

5'-CTGTGCGGTATTTACACCG-3' (left primer) and 5'-AGATTGTACTGAGAGTGCAC-3'

(right

primer).

- Yeast 14: 115-132, 1998

These same primers can be used to amplify an ADE2 marker gene disruption product from pRS402 (ATCC 87477).

- Yeast 14: 115-132, 1998

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pRS401 plasmid in E. coli (ATCC 87473)

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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 2025-09-13

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# **pRS401 plasmid in E. coli**

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