



# pRS401 plasmid in *E. coli*

87473™

## Description

**Clone type:** Vector

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

---

## Storage Conditions

**Product format:** Frozen

---

## 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

# pRS401 plasmid in *E. coli*

87473

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

---

## Insert Information

**Target gene:** O-acetylhomoserine sulfhydrylase

---

## 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; Apal; 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; Apal; KpnI

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

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

---

## Growth Conditions

### Medium:

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

**Temperature:** 37°C

---

## Notes

## pRS401 plasmid in *E. coli*

87473

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 transformation 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'-AGATTGTAAGAGAGTGAC-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

---

### 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)

---

## References

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

---

## Warranty

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

---

## Disclaimers

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. Any proposed commercial use is prohibited without a license from ATCC.

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 or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at [www.atcc.org](http://www.atcc.org).

---

## Copyright and Trademark Information

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

---

## Revision

This information on this document was last updated on 2021-05-19

---

## pRS401 plasmid in *E. coli*

87473

### Contact Information

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

---