

pRS401 plasmid in *E. coli*

87473TM

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

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Certificate of Analysis



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For batch-specific test results, refer to the applicable certificate of analysis that can be found at 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; Spel; BamHI; SmaI; PstI; ClaI; Sall; Xhol; Apal; KpnI

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

Markers: MET15; ampR

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

Polylinker sites: SacI; BstXI; SacII; EagI; NotI; XbaI; Spel; BamHI; SmaI; PstI; EcoRI; EcoRV; HindIII; ClaI; Sall; Xhol; 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



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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'-CTGTGCGGTATTCACACCG-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

Material Citation



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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.

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