ATCC

Product Sheet

pRS401 plasmid in E. coli (ATCC® 87473™)

Please read this FIRST

Biosafety Level
1

Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: pRS401 plasmid in E. coli (ATCC® 87473™)

Shipping Information

Distributed: freeze-dried

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Designation: pRS401 plasmid in E. coli
Distribution Host:
Distribution host: *Escherichia coli* HB101 (ATCC 33694)
Media:
ATCC® Medium 1227: LB Medium (ATCC medium 1065) with 50 mcg/ml ampicillin

Conditions

Temperature: 37.0°C

Vector Information

Size (kb): 4.893
DESCRIPTION OF VECTOR:
Intact vector size: 4.893
Type of vector: phagemid
Cloning sites: SacI BstXI SacII EagI NotI SpeI BamHI SmaI PstI ClaI SalI
XhoI ApaI KpnI
Polylinker sites: SacI BstXI SacII EagI NotI XbaI SpeI BamHI SmaI PstI EcoRI
EcoRV HindIII ClaI SalI XhoI ApaI KpnI
Construction: pJK142
Host range: Saccharomyces cerevisiae; Escherichia coli
Features (with orientation and position when available):
marker(s): MET15, ->, 421-1270
replicon: f1, <-, 1860-2316
promoter for in vitro transcription: T7, ->, 2486-2505
MCS: KpnI...SacI, ->, 2513-2619
promoter for in vitro transcription: T3, <-, 2632-2651
promoter: lac, <-, 2721-2749
coding sequence: lacZ', <-, 2317-2676
replicon: pMB1, 3075-3075
marker(s): ampR, <-, 3833-4693
Vector: pRS401 (phagemid)
Promoters: Promoter for in vitro transcription T7
Construction: pJK142
Marker(s):ampR,MET15
Construct size (kb): 4.893
Features: marker(s): MET15
marker(s): ampR
promoter: lac
promoter for in vitro transcription: T3
promoter for in vitro transcription: T7
replicon: f1
replicon: pMB1
MCS: KpnI...SacI
coding sequence: lacZ'

References

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

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

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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'-CTGTGCGGTATTTCACACCG-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

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

Disclaimers

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at www.atcc.org

Additional information on this culture is available on the ATCC web site at www.atcc.org.
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