



pNKY1009

87624™

Product Sheet

Description

Clone type: Vector

Host: *Escherichia coli* FD 27747 [DB6507] (ATCC 35673)

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

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Insert Information

Target gene: ATP phosphoribosyltransferase; uridine monophosphate synthetase

Vector Information

Construct size (kb): 9.60

Intact vector size: 9.600

Vector name: pNKY1009 (plasmid)

Type of vector: plasmid

Construction: YRp7, pNKY51

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

Vector information:

Other unique sites: PvuII

Features (with orientation and position when available):

Coding sequence: 3' TRP1, <-; hisG, ->; hisG, ->; 5' TRP1, <-; ROP, ->; 3' TRP1; 5' TRP1; ROP; hisG

Markers: ampR; URA3

Replicon: pMB1; ARS1, →

Restriction sites: BglII; EcoRI

Growth Conditions

Medium:

ATCC Medium 2057: M9 salts with supplements

Temperature: 37°C

Notes

Restriction digests of the clone give the following sizes (kb): BglII--9.6;
EcoRI--5.2, 4.4; BglII/EcoRI--4.6, 4.4, 0.6.

- ATCC staff

E. coli containing plasmid should be grown on medium lacking pyrimidines to select for URA3-containing cells.

- personal communication

The 4.6 kb EcoRI/BglII insert contains two direct repeats of the Salmonella hisG gene flanking URA3 plus TRP1 sequences flanking the hisG-URA3-hisG sequence.

- Genetics 116: 541-545, 1987

This deleter vector is used to create yeast strains with a trp1 auxotrophic marker deletion.

- Genetics 116: 541-545, 1987

The two step selection process requires a ura3 transformation host (this host can be created using pJL164 (ATCC 87471)). After transformation with the EcoRI/BglII digested plasmid, URA3 integrants are selected on ura- plates.

- Genetics 116: 541-545, 1987

The deletion strain is then recovered by selection on 5-FOA plates (loss of URA3 marker by a homologous recombination event between the two hisG repeats).

- Genetics 116: 541-545, 1987

The plasmid was constructed by inserting the 3.8 kb BamHI-BglII hisG-URA3-hisG fragment into the modified EcoRV site within the TRP1 gene of YEp7.

- Genetics 116: 541-545, 1987

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pNKY1009 (ATCC 87624)

References

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

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