



pSCH2002

87432™

Product Sheet

Description

Organism: *Escherichia coli* (Migula) Castellani and Chalmers

Clone type: Clone

Host: *Escherichia coli* DH5alpha

Storage Conditions

Product format: Freeze-dried

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

Insert size (kb): 0.92300000000000004

Type of DNA: unknown

Insert information:

DESCRIPTION OF INSERT COMPONENT:

Cross references: DNA Seq. Acc.: V00618

Nucleotides 1-923 of the insert correspond to nucleotides 328-1251 of V00618.

Genome: *Escherichia coli*

Gene name: aminoglycoside resistance

Gene product: aminoglycoside resistance [aph(3')-IIa]

Gene symbol: aph(3')-IIa

Contains complete coding sequence: Unknown

Insert end: PstI

Vector Information

Construct size (kb): 3.9000000095367432

Intact vector size: 2.964

Vector name: pBluescript KS-

Type of vector: phagemid

Construction: pUC19

Host range: *Escherichia coli*

Vector end: PstI

Cloning sites: SacII; XmaI; NotI; XbaI; SpeI; BamHI; SmaI; PstI; EcoRI; EcoRV; HindIII;

Clal; SalI HincII AccI; XhoI; DraI; ApaI; KpnI

Enhancer: none

Insert detection: lacZ'

Markers: ampR

Polylinker sites: SEE COMMENTS

Promoters: lac; T3; T7

Replicon: pMB1; f1

Terminator: none

Growth Conditions

Medium:

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

Temperature: 37°C

Notes

Restriction digests of the clone give the following sizes (kb): PstI--3.0, 1.1, 1.1; EcoRI--5.2; HindIII--5.2. The clone contains two copies of the insert.

- ATCC staff

The insert contains the following restriction sites (approximate kb from the 5' end): PvuII--0.06, 0.82; SphI--0.35; NcoI--0.38; SmaI--0.79.

- GenBank/EMBL/DDBJ

A hybridization probe may be generated using the following vector specific PCR primers: modified T3 = 5'-CCCCTCACTAAAGGGAACAAAAGCTG-3' and modified T7 = 5'-CGCGTAATACGACTCACTATAGGGCGAA-3'.

- Woodford, N.; Johnson, A., eds. Methods in molecular medicine: molecular approaches for the diagnosis and investigation of bacterial diseases. Totowa, NJ: Humana Press; 1996:submitted

A single gel purification of the PCR generated probe is necessary since flanking regions will co-amplify with the gene specific sequence. Failure to do so often results in high backgrounds and false positives with clinical E. coli strains.

- Woodford, N.; Johnson, A., eds. Methods in molecular medicine: molecular approaches for the diagnosis and investigation of bacterial diseases. Totowa, NJ: Humana Press; 1996:submitted

The suggested PCR generated probe encodes the last 617bp of the aph(3')-IIa gene plus 290bp of the bleomycin resistance gene from Tn5. A better probe for the aph(3')-IIa gene would be the 383bp PstI/NcoI fragment.

- Woodford, N.; Johnson, A., eds. Methods in molecular medicine: molecular approaches for the diagnosis and investigation of bacterial diseases. Totowa, NJ: Humana Press; 1996:submitted

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pSCH2002 (ATCC 87432)

References

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

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