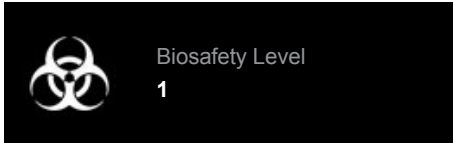




Product Sheet

PGP5-5 AND PTRX-2 PLASMIDS IN E COLI K38 (67287)

Please read this FIRST



Intended Use

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

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U.S. Patent Number:
4,795,699

Technical Information

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Product Description

Designation: PGP5-5 AND PTRX-2 PLASMIDS IN E COLI K38
Organism: *Escherichia coli* (Migula) Castellani and Chalmers

Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Comments

Restriction digests of the clone give the following sizes (kb): EcoRI--3.2, uncut; HincII--3.4, 2.5, 1.25, 1.1, 0.72(doublet).

For pGP5-5, the insert size is 3.0 kb and the total size of the plasmid is 6.06 kb. For pTrx-2, the insert size is 0.47 kb per copy of the trxA gene and the total size of the plasmid is 3.23 kb.

pGP5-5 contains the replicon P15A. pTrx-2 contains the replicon ColE1.

T7 DNA polymerase consists of two subunits, a protein encoded by T7 gene 5 and *Escherichia coli* thioredoxin.

M13mGP1-2 (ATCC 40303) can coexist in the same cell as the two plasmids of ATCC 67287, pGP5-5 and pTrx-2. The T7 RNA polymerase of M13mGP1-2 can be used to regulate expression of T7 DNA polymerase by inducing the RNA polymerase with IPTG.

Escherichia coli K38 = HfrC lambda.

pTrx-2 contains two tandem copies of trxA cloned into ptac-12. Expression of the gene is controlled by the tac promoter and is inducible by IPTG. pTrx-2 is ampicillin resistant and contains a unique EcoRI site. It is also available as ATCC 67286.

pGP5-5 contains two segments of bacteriophage T7: nt 5667-6166 (phi1.1A and phi1.1B promoters) and nt 14306-16869 (gene 5). These are cloned into BamHI-HincII of pACYC177. pGP5-5 is kanamycin resistant and contains a unique XhoI site.

Propagation

Complete Growth Medium



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1065 plus ampicillin plus kanamycin

References

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



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.

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