



pMSC1

77275™

Description

Clone type: Vector

Host: *Escherichia coli* JM101 (ATCC 33876)

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.

Vector Information

Construct size (kb): 13.10000038146973

Intact vector size: 13.100

Vector name: pMSC1 (cosmid)

Type of vector: cosmid

Construction: Lawrist4, pYUB12

Host range: *Mycobacterium* sp.; *Escherichia coli*

Vector information:

Cloning capacity: 30-42 kb

Cloning sites: BamHI; HindIII; NheI

Markers: kanR; ampR

Replicon: lambda; pMB1; pAL5000

Terminator: trpA, rrnC, fd

Growth Conditions

Temperature: 30°C

Notes

Restriction digests of the clone give the following sizes (kb): EcoRV-8.2, 5.0; HindIII-13.5; BamHI-13.5; NheI-13.5; EcoRI-6.5, 2.5, 1.3. IMPORTANT: To prevent amplification of a rearranged and/or deleted cosmid, we recommend streaking on LB + amp plates at 30C and picking small colonies for liquid culture.

- ATCC staff

The vector should be selected using ampicillin and kanamycin in *E. coli*, and

kanamycin in *Mycobacterium*.

- personal communication

A cosmid shuttle vector useful for genomic DNA library construction.

- Gene 110: 115-118, 1992

The *ScaI* site between the *cos* sites can be used to linearize the plasmid. After packaging, 10.3 kb of vector is retained, permitting an insert range of 30 - 42 kb. Sequences hybridizing to pBR322, including *ampR*, are removed.

- Gene 110: 115-118, 1992

The pAL5000 ori permits replication in *Mycobacterium smegmatis* and *M. bovis* BCG.

- Gene 110: 115-118, 1992

The order of the major features in this plasmid is: *cos* - pMB1 ori - *ampR*/*ScaI* - *cos* - *trpA* terminator - *XbaI* - *HindIII* - *fd* terminator - *EcoRV* - pAL5000 ori - *BamHI* - *rrnC* terminator - *EcoRV* - *lambda* ori - *NheI* - *kanR*.

- Gene 110: 115-118, 1992

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pMSC1 (ATCC 77275)

References

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

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