



# pMSC1

77275™

Product Sheet

## Description

**Clone type:** Vector

**Host:** *Escherichia coli* JM101 (ATCC 33876)

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## Storage Conditions

**Product format:** Frozen

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## 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.

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## 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.

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## Certificate of Analysis



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For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://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



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kanamycin in *Mycobacterium*.

- personal communication

A cosmid shuttle vector useful for genomic DNA library construction.

- Gene 110: 115-118, 1992

The Scal 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/Scal - cos - trpA terminator - XbaI - HindIII - fd terminator - EcoRV - pAL5000 ori - BamHI - rrnC terminator - EcoRV - lambda ori - NheI - kanR.

- Gene 110: 115-118, 1992

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## Material Citation

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

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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## Warranty



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