# pAR1219

## MBA-387™

### Description

This product is an ATCC manufactured and accessioned progeny of 39563 cited in US Patent Number 4,952,496.
**Organism:** *Escherichia coli* (Migula) Castellani and Chalmers
**Clone type:** Clone
**Host:** *Escherichia coli* HMS174; Richardson HMS 174
**Genotype:** pAR1219 T7gene1 lacI F- hsdR19 recA1 rpoB331 IN(rrnD-rrnE)1 lambda-
**Deposited As:** ATCC accessioned progeny of pAR1219 cited in US Patent Number 4,952,496 as 39563.

### Storage Conditions

**Product format:** Frozen
**Storage conditions:** -80°C or colder

### 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):** 4.4400000000000004
**Type of DNA:** genomic
**Insert information:** Genomic copy number: unique
Cross references: DNA Seq. Acc.: J02518
**Genome:** bacteriophage T7
**Target gene:** RNA polymerase
**Gene name:** RNA polymerase
**Gene product:** RNA polymerase [gene 1]
**Gene symbol:** gene 1
**Contains complete coding sequence:** Unknown
**Insert end:** Modification: BamHI linkers

## Vector Information

**Construct size (kb):** 8.8
**Intact vector size:** 4.363
**Vector name:** pBR322
**Type of vector:** plasmid
**Construction:** pBR313
**Host range:** *Escherichia coli*
**Vector end:** BamHI
**Vector information:** Cross references: DNA Seq. Acc.: J01749
**Cloning sites:** EcoRI; ClaI; HindIII; EcoRV; BamHI; SphI; SalI; XmaIII; NruI; BspMI; BsmI;

StyI; AvaI; BalI; BspMII; PvuII; Tth111I; NdeI; AflIII; PpaI; PstI; PvuI; ScaI; SspI; AatII
**Markers:** ampR; tetR
**Replicon:** pMB1

## 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): BamHI--4.4 (doublet); BglII-uncut; EcoRI--8.8; PstI--8.8; HindIII--8.8.
- ATCC staff

The insert size given is for that of the sum of the lac and gene 1 sequences. Gene1 was sequenced from T7 wild-type DNA. The junctions between gene 1 and lac were sequenced. Lac sequence is taken from GenBank J01637. The lac fragment contains the lacI promoter, lacI gene, lacUV5 promoter, lac operator, and the translation start site and first 147 amino acids of B-galactosidase. pAR1219 produces large amounts of T7 RNA polymerase in a suitable host upon induction with IPTG. Large amounts of active T7 RNA polymerase can be purified from the strain BL21/pAR1219. pAR1219 was made by inserting a 1724 bp HincII fragment from pMC1, containing lac control elements, into the BglII site of pAR1173. The construction consists of a fragment containing the T7 RNA polymerase gene (gene 1, including nucleotides 3145 to 5841 of T7 DNA) under the transcriptional regulation of lacI and the lacUV5 promoter. The T7 RNA polymerase expression construct, encoding gene 1 and lac regulatory sequences, can easily be excised as a 4.4 kb BamHI fragment for insertion into another construct.
- U.S. Pat. 4,952,496 dated Aug. 28, 1990

## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: pAR1219 (ATCC MBA-387)

## References

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

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## Revision

This information on this document was last updated on 2025-03-27

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