



Escherichia coli bacteriophage P4 sid1

29746-B1™

Description

UV-induced mutant of ATCC® 29745-B1™. Infects ATCC® 29745™ and 29746™.

Strain designation: P4 sid1

Deposited As: P4 sid1

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.

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ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submerged 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 vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submerged in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Host: *Escherichia coli* C1197 (ATCC 29746); (ATCC)

Medium:

ATCC Medium 1020: LB modified broth

Temperature: 37°C

Atmosphere: Aerobic

Handling Procedures

1. Follow general procedures given below for phage propagation.
2. Use ATCC 29746 *Escherichia coli* as host.

GENERAL PROCEDURES FOR THE PROPAGATION OF BACTERIOPHAGE

To recover phage from freeze-dried or LN₂ vial:

- a. Prepare an actively growing broth culture of the recommended host strain before opening the phage specimen. The host should be 18-24 hours old.
- b. Add approximately 0.25 mL of the recommended broth to a freeze-dried phage vial, 0.5 mL to a liquid cryovial.
- c. Prewarm plates of the recommended medium in an incubator. Overlay the surface with 2.5 mL of melted 0.5% agar (same medium) which contains 100 μ L of the host. The soft agar should be maintained 43 to 45°C till ready to pour. It may be advisable to use a water bath. Allow overlay to harden.
- d. The rehydrated phage can be serially diluted by passing 0.1 mL of the phage into a tube containing 0.5 mL of the broth medium. Repeat for as many passages as desired.
- e. 100 μ L of each dilution is spotted on the surface of the prepared plates. Allow to dry. After overnight incubation, lysis should be visible. At the higher dilutions, individual plaques should be countable.

To propagate phage:

- a. Phage may be propagated by preparing plates with the soft agar covering the surface with approximately 0.5 mL of the concentrated phage. Or, alternatively, may add the phage directly to the melted agar/host before pouring over the plates. For larger amounts, large size T-flasks can be prepared with the recommended agar, and approximately 12.0 mL of melted soft agar/host poured over the surface. Phage is then allowed to run over hardened surface. Phage may also be added directly to melted soft agar before pouring as described above.
- b. After 24 hours incubation, the soft agar is scraped off the surface of the agar plates. Centrifuge at about 1000 rpm for 25 minutes to sediment the cellular debris and agar. Conserve the supernatant.
- c. This supernatant is passed through a .22 μ m Millipore filter and the filtrate stored at 4-8°C. Lysates should remain viable under refrigeration for long periods. They may also be frozen with or without cryoprotectant. If available, liquid nitrogen storage is the best method for long term storage. Most phage can also be freeze-dried. We use double-strength skim milk mixed half-and-half with the filtrate.

NOTE: Broth propagation methods may also be employed with most phage. Unless otherwise noted, ATCC uses the Adams agar overlay method as described in M. H. Adams' Bacteriophages (Interscience Publishers, Inc., New York, 1959) for routine phage production.

Notes

Additional information on this culture is available on the ATCC® web site at www.atcc.org.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Escherichia coli* bacteriophage P4 sid1 (ATCC 29746-B1)

References

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

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Product Sheet

Revision

This information on this document was last updated on 2022-08-13

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