



# ***Chloroflexus aurantiacus*** **Pierson and Castenholz**

**29363™**

## **Description**

*Chloroflexus aurantiacus* strain 396-1 was isolated in 1972 from a hot spring at Yellowstone National Park. This thermophilic strain is known to oxidize sulfide. This strain is part of the National Park Service (NPS) Special Collection.

**Strain designation:** 396-1

**Deposited As:** *Chloroflexus aurantiacus* Pierson and Castenholz

**Type strain:** No

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## **Storage Conditions**

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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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.

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 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 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 submersed in liquid nitrogen.

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## Certificate of Analysis

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

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## Growth Conditions

### Medium:

ATCC Medium 920: *Chloroflexus* medium

**Temperature:** 50°C

**Incubation:** Under 100 foot candles tungsten

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## Handling Procedures

1. Open vial according to enclosed instructions.
2. Using a single tube of 920 broth (5 to 6 ml), withdraw approximately 0.5 to 1.0 ml with a Pasteur or 1.0 ml pipette. Rehydrate the entire pellet.
3. Aseptically transfer this aliquot back into the broth tube. Mix well.

4. Use several drops of the suspension to inoculate a second tube of broth and a #920 slant.
  5. Incubate tubes at 50°C under 1000-2000 LUX light. It is helpful to incubate test tubes in a slanted position to increase gas exchange in broth and to enhance exposure to light.
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## Notes

Good growth, indicated by increased pigmentation in the broth or on the slant, should occur after one to three weeks of incubation. Examine cells microscopically to assure that they are intact and healthy. At this time additional test tubes or flasks can be inoculated. A 5% inoculum is recommended (i.e. 5 ml of culture to 100 ml fresh medium).

To minimize change in a culture, it is recommended that a frozen seed stock be established from early passage cells. This may be accomplished by propagating the strain under ideal conditions, utilizing recommended medium, temperature and light. Prepare a concentrated cell suspension, after good growth is achieved. If grown in broth, pellet the cells by centrifugation. Decant the supernatant and resuspend the pellet in fresh #616 broth using 1/10 or less of the original volume. For slant cultures, wash cells off the agar surface with a minimal amount of #920 broth so that a concentrated cell suspension is attained. Add 50% DMSO solution to the concentrated cell suspension so that the final concentration of DMSO in the suspension is 5%. Dispense small aliquots (0.5 to 1 ml) of the suspension into small sterile vials. Store the vials at -50°C or below.

When needed, remove vials from storage, thaw contents in a 37°C water bath and inoculate into recommended medium. A minimum of 0.2 ml of the thawed stock should be used to inoculate 5 ml of broth or 1 agar slant.

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the

following manner: *Chloroflexus aurantiacus* Pierson and Castenholz (ATCC 29363)

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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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## Revision

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## Contact Information

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**29363**

Product Sheet

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