



# *Xanthomonas axonopodis* Starr and Garces pathovar *manihotis*

23380™

## Description

**Strain designation:** ICPB XM 4 [ICMP 6934, LMG 5274, NCPPB 1159, SM1]

**Deposited As:** *Xanthomonas campestris* (Pammel) Dowson pathovar *manihotis*

**Type strain:** No

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## Storage Conditions

**Product format:** Freeze-dried

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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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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 3: Nutrient agar or nutrient broth

**Temperature:** 26°C

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## Handling Procedures

1. Open vial according to enclosed instructions.
2. Using a single tube of #3 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, a slant,

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and/or plate.

5. Incubate all tubes and plate at 26°C for 48 to 72 hours.

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### **Notes**

Colonies on #3 agar are entire, glistening, smooth, translucent, and gray. Some are more stippled than others.

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Xanthomonas axonopodis* Starr and Garces pathovar *manihotis* (ATCC 23380)

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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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## **Contact Information**

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

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