



Product Sheet

# *Nosema trichoplusiae* (ATCC® 30702™)

Please read this **FIRST**



## Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: *Nosema trichoplusiae* (ATCC® 30702™)

American Type Culture Collection  
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Manassas, VA 20108 USA  
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## Description

**Deposited Name:** *Nosema trichoplusiae* Tanabe and Tamashiro

**Depositor:** JV Maddox

**Isolation:**

*Trichoplusia ni*, Columbia, MO, 1977

## Propagation

### Growth Conditions

**Protocol:** ATCCNO: 30702 SPEC: This strain is distributed as a frozen stabilate. See general instructions for thawing and storage of frozen material before proceeding. Upon arrival remove the frozen ampoule from the dry ice and transfer directly to a 35°C water bath. Each ampule contains 1.5 X 10<sup>9</sup> spores in a 0.5 ml 1:1 water-glycerol mixture. The number of spores should be sufficient to infect at least 10 larvae. For further information on growth and maintenance, refer to: *J. Invertebr. Pathol.* 9: 188-195, 1967; *ibid.*, 24: 1-13, 1974.

### Instructions for Complete Medium

**Media:** *in-vivo* cultivation, moth larvae

## Cryopreservation

1. Harvest parasite spores according to the protocol for maintenance *in vivo*.
2. Centrifuge at 1400 x g for 10 min.
3. While spores are centrifuging prepare a 75% (v/v) solution of sterile glycerol in fresh Hank's Balanced Salt Solution (HBSS) (ATCC cat. 30-2101) or sterile distilled water.
4. Pool the pellets and adjust the concentration to 2.0 - 4.0 x 10<sup>9</sup> spores/ml with fresh HBSS or sterile distilled water.

NOTE: If the concentration is too low centrifuge at 1400 x g for 10 min and resuspend in the volume of HBSS required to yield the desired concentration.

5. Mix the cell preparation and glycerol solution in a 1:3 ratio. The final concentration will be 1.0 - 2.0 x 10<sup>9</sup> spores/ml and 50% glycerol. The time from the mixing of the cell preparation and cryoprotective solution to the start of the freezing process should be no less than 15 min. and no more than 30 min.
6. Dispense in 0.5 ml aliquots to 1.0-2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
7. Place the vials in a controlled rate freezing unit. From room temperature cool at -1°C/min to -40°C. If the freezing unit can compensate for the heat of fusion, maintain rate at -1°C/min through the heat of fusion. At -40°C plunge into liquid nitrogen. Alternatively, place the vials in a Nalgene 1°C freezing apparatus. Place the apparatus at -80°C for 1.5 to 2 hours and then plunge ampules into liquid nitrogen. (The cooling rate in this apparatus is approximately -1°C/min.)
8. Store in either the vapor or liquid phase of a nitrogen refrigerator.
9. To thaw a frozen ampule, place it in a 35°C water bath such that the lip of the ampule remains above the water line. Thawing time is approximately 2 to 3 minutes. Do not agitate the ampule. Do not leave ampule in water bath after thawed.
10. When completely thawed, infect lepidopteran larvae either by placing spores on the surface of their food plant or artificial diet, or by force-feeding with a syringe mounted on a micro-applicator. Follow the protocol for maintenance *in vivo*.

## References

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

## Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

## ATCC Warranty



Product Sheet

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The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

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### **Disclaimers**

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

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

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