



# *Crithidia permixta*

PRA-261™

## Description

*Crithidia permixta* strain 128 SI is a parasitic protozoan that was isolated from the intestine of *Mirini* sp.

**Strain designation:** 128 SI

**Type strain:** No

---

## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -80°C or colder for 1 week, vapor phase of liquid nitrogen for long-term storage

---

## 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.

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](http://www.atcc.org).

---

## Growth Conditions

### Medium:

ATCC Medium 2736: M199, Modified Medium

ATCC Medium 1034: Modified PYNFH medium (Available from ATCC as ATCC cat. no. 327-X)

ATCC Medium 44: Brain Heart Infusion Agar/Broth

ATCC Medium 355: Crithidia medium

**Instructions for complete medium: Media:** ATCC Medium 2736 (completed with 10% HIFBS and 10 µg/mL hemin)

**Alternate Media:** ATCC Medium 1034 (completed with 10% HIFBS and 10 µg/mL hemin), ATCC Medium 44 (completed with 10% HIFBS and 10 µg/mL hemin), or ATCC Medium 355 (no additives). ATCC medium 1034 can also be used for cultivation and is available in a freeze-dried format from ATCC (ATCC 327-X).

**Temperature:** 25°C

**Culture system:** Axenic

---

## Handling Procedures

### Storage and Culture Initiation

Frozen ampules packed in dry ice should either be thawed immediately or stored in liquid nitrogen. If liquid nitrogen storage facilities are not available, frozen ampules may be stored at or below  $-70^{\circ}\text{C}$  for approximately one week. **Do not under any circumstance store frozen ampules at refrigerator freezer temperatures (generally  $-20^{\circ}\text{C}$ ).** Storage of frozen material at this temperature will result in the death of the culture.

1. To thaw a frozen ampule, place in a  $35^{\circ}\text{C}$  water bath until thawed (2-3 min). Immerse the ampule just sufficiently to cover the frozen material. Do not agitate the ampule.
2. Immediately after thawing, aseptically transfer contents to a T-25 tissue culture flask containing 10 mL ATCC Medium 2736. Incubate at  $25^{\circ}\text{C}$  with the cap screwed on tightly.

### Culture maintenance:

1. Vigorously agitate a culture at or near peak density and aseptically transfer 0.1-0.2 mL to a fresh flask containing 10 mL ATCC Medium 2736.
2. Incubate at  $25^{\circ}\text{C}$  with the cap screwed on tightly.
3. Subculture every 10-14 days as described in step 1. The transfer interval will depend on the quantity of the inoculum and the quality of the medium. This should be empirically determined by examining the culture on a daily basis until the growth cycle has stabilized.

### Cryopreservation:

1. Harvest cells from a culture which is at or near peak density by centrifugation at 1,300 g for 5 min.
2. Adjust concentration of cells to  $2 \times 10^7/\text{mL}$  in fresh medium.
3. While cells are centrifuging prepare a 10% (v/v) solution of sterile DMSO in fresh medium (broth). The DMSO solution when first prepared will warm up due to chemical heat. The solution should be allowed to return to room temperature prior to use.
4. Mix the cell preparation and the DMSO solution in equal portions. The final concentration will be  $10^7$  cells/mL and 5% (v/v) DMSO. The time from the

## ***Crithidia permixta***

PRA-261

- mixing of the cell preparation and DMSO stock solution before the freezing process is begun should be no more than 15 min.
5. Dispense in 0.5 mL aliquots into 1.0 - 2.0 mL sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
  6. Place the ampules 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.)
  7. Store in either the vapor or liquid phase of a nitrogen refrigerator.
  8. 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.
  9. Immediately after thawing, do not leave in the water bath, aseptically transfer the contents of the ampule into a fresh flask containing 10 mL ATCC Medium 2736.
  10. Incubate at 25°C with the cap screwed on tightly.
  11. Maintain as described above.
- 

### **Notes**

Some strains may not grow equally well in alternative media

---

### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Crithidia permixta* (ATCC PRA-261)

---

### **References**

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

---

## ***Crithidia permixta***

PRA-261

### **Warranty**

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

---

### **Disclaimers**

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. Any proposed commercial use is prohibited without a [license from ATCC](#).

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity

## ***Crithidia permixta***

PRA-261

undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at [www.atcc.org](http://www.atcc.org).

---

### **Copyright and Trademark Information**

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

---

### **Revision**

This information on this document was last updated on 2025-10-13

---

### **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

---