



Product Sheet

## *Piscirickettsia salmonis*

Fryer et al. (ATCC® VR-1361™)

Please read this **FIRST**

Storage Temp.  
**-70°C or colder**

---

Biosafety Level  
**2**

### 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: *Piscirickettsia salmonis* Fryer et al. (ATCC® VR-1361™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

### Description

**Strain:** LF-89

**Classification:** Thiotrichales, Piscirickettsiaceae, Piscirickettsia

**Original Source:**

clinical specimen - animal  
Chile

**Isolation date:** October, 1989

**Depositor:** JL Fryer, CN Lannan

### Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

### Propagation

**Propagation Host:**

**Recommended Host:** CHSE-214 (ATCC® CRL-1681™)

**Effect on Host:**

Cytopathic effects in tissue culture

[ref](#)

CPE; small refractile rounding and clumping

**Medium:**

Agent growth medium: EMEM + 10% FBS (ATCC® 30-2020) + 10 mM HEPES

**Growth Conditions**

**Atmosphere:** air, 95%; carbon dioxide (CO<sub>2</sub>), 5%

**Temperature:** 15°C to 18°C

Duration: 6 to 14 days; For best results host cells should be 24 to 48 hours old and 70% - 80% confluent (not 100% confluent).

### Comments

Gram negative, non-motile, pleomorphic 0.5-1.5 mm diameter coccoid. Proposed member of the tribe Ehrlichieae. See Fryer et. al. (International Journal of Systematic Bacteriology, 42:12-126, 1992) for background on nomenclature. NOTE: Titer is decreased by >99% by one cycle of freeze-thaw at -70°C. Addition of 10%DMSO has a cryopreservative effect.

### References

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

### Key Abbreviations

bp, base pair

C, Celsius

CHH-1, normal chum salmon (*Oncorhynchus keta*) heart cells

CHSE-214, normal chinook salmon (*Oncorhynchus tshawytscha*) embryo cells

CPE, cytopathic effect

DMSO, dimethyl sulfoxide

EMEM, Eagles minimum essential medium

FBS, fetal bovine serum

HEPES, N-2-Hydroxyethylpiperazine-N<sup>1</sup>-2-Ethane Sulfonic acid

mm (um), micrometer

mL, milliliter

mM, millimole

NCBI, National Center for Biotechnology Information

PCR, polymerase chain reaction

RTG-2, rainbow trout (*Oncorhynchus mykiss*) gonadal tissue cells

TC, tissue culture

TCID<sub>50</sub>(TCID[50]), The Tissue Culture Infectious Dose

50% endpoint is the 50% infectious endpoint in cell culture. The TCID<sub>50</sub> is the dilution of agent that under the conditions of the assay can be expected to infect 50% of the culture vessels inoculated, just as a Lethal Dose




## Product Sheet

# *Piscirickettsia salmonis*


## Fryer et al. (ATCC® VR-1361™)

### Please read this FIRST



Storage Temp.  
**-70°C or colder**

---



Biosafety Level  
**2**

### 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: *Piscirickettsia salmonis* Fryer et al. (ATCC® VR-1361™)

50% (LD<sub>50</sub>) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID<sub>50</sub> provides a measure of the titer (or infectivity) of a preparation.



### Biosafety Level: 2

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

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.

### Disclaimers

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

This product is sent with the condition that you are responsible for its safe storage, handling, and use. ATCC is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.

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).

© ATCC 2014. All rights reserved. ATCC is a registered trademark of the American Type Culture Collection. [04/08]

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor