



Fetal Bovine Serum, ES Cell Qualified

SCRR-30-2020™

Description

Fetal Bovine Serum, ES Cell Qualified is tested for its ability to support the growth and maintenance of embryonic stem cells in an undifferentiated state.

Undifferentiated embryonic stem cells are determined by colony morphology and expression of three pluripotent markers. The results are compared to a control lot of serum. The serum is triple-filtered through 0.1 µM filters and each lot of fetal bovine serum is tested for sterility. Fetal bovine serum is manufactured from fetal bovine blood collected in USDA-inspected abattoirs located in the United States.

Volume: 500 mL

Storage Conditions

Product format: Frozen

Storage conditions: -70°C or colder

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.

Biosafety Information

ATCC determined that a biosafety level is not applicable to this 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 complete your own risk assessment and understand any potential hazards associated with the material per your organization's policies and procedures and any other applicable regulations as enforced by your local or national agencies.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Handling Procedures

General Procedure: Fetal Bovine Serum, ES Cell Qualified is added to Mouse ES Basal Cell Media to a final concentration of 10 to 15%.

Thawing

Remove serum from frozen storage and place the bottle(s) overnight in a refrigerator at 2°C to 8°C. When ready for use, transfer the bottle(s) to a 37°C water bath. Gently agitate the bottle(s) periodically in order to mix the solutes that tend to concentrate at the bottom of the bottle. Do not keep serum at 37°C any longer than necessary for it to thaw completely. Alternatively, serum bottles may be placed in a 37°C water bath directly from frozen storage. Do not thaw serum at temperatures above 37°C. Bottles should be agitated by a gentle swirling motion to enhance mixing and thawing.

If you are not using all of your thawed serum at once, dispense it into single-use aliquots and store these at -70°C or -20°C. Protect the aliquots from light as much as possible during storage.

Serum Precipitates

Turbidity and flocculent material may be present after thawing. ATCC's experience

indicates that neither of these changes affect the performance of serum. If the presence of flocculent material or turbidity is a concern, they can be removed by aseptic filtration through a sterile 0.45 µm filter.

Heat-Inactivation of Serum

CAUTION: Heat-inactivation of serum is usually unnecessary and can be detrimental to the growth of some cells. We strongly recommend that you heat-inactivate fetal bovine serum only if it is required for a particular cell line.

1. Thaw serum following the directions above.
2. Preheat a water bath to 56°C with sufficient water to rise above the level of the serum in the bottle.
3. Mix thawed serum by gently swirling the bottle and then place the bottle in the 56°C water bath. (The temperature of the water bath will decrease.)
4. When the temperature of the water bath reaches 56°C again, heat the serum for an additional 30 minutes. Mix gently every five minutes to ensure uniform heating.
5. At the end of 30 minutes, remove serum from the water bath, cool, and store at -70°C or -20°C (see Storage, above).

Quality Control Specifications

Bacterial and fungal testing: Not detected

Mycoplasma contamination: Not detected

Virus testing: Not detected

Biochemical profile: See the Certificate of Analysis for lot-specific results

Endotoxin: ≤ 10 EU/mL

Growth promotion: Pass

Hemoglobin: Report result

Material Citation

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

following manner: Fetal Bovine Serum, ES Cell Qualified (ATCC SCRR-30-2020)

References

References and other information relating to this material are available at www.atcc.org.

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 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.

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 2023-01-21

Contact Information

Fetal Bovine Serum, ES Cell Qualified

SCRR-30-2020

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: tech@atcc.org or contact your local distributor
