



# Fetal Bovine Serum (FBS)

30-2021™

## Description

Fetal Bovine Serum (FBS) is triple filtered through 0.1 µm filters. Each lot of fetal bovine serum is tested for sterility and for the ability to support the growth of several different cell lines using both sequential growth curves and plating efficiencies. Fetal bovine serum is manufactured from fetal bovine blood collected in USDA inspected-abattoirs located in the United States. This product is 100 mL. It has applications for cell culture, cell growth, and viability.

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## Storage Conditions

**Product format:** Frozen

**Storage conditions:** -20°C or colder

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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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## 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.

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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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## Handling Procedures

### Thawing

Remove serum from frozen storage and place the bottle(s) overnight in a refrigerator at 2°C to 8°C. Gently agitate the bottle(s) from time-to-time 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, it is recommended to dispense it into single-use aliquots and store these at -20°C or colder. Temporary storage of thawed serum at 2°C to 8°C may be acceptable, depending on the customer application. This should be validated by the customer prior to implementation.

### Serum Precipitates

Turbidity and flocculent material may be present after thawing. ATCC's experience indicates that neither of these changes affects 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 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 insure uniform heating.
5. At the end of 30 minutes, remove serum from the water bath, cool, and store at -20°C or colder.

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## 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

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: Fetal Bovine Serum (FBS) (ATCC 30-2021)

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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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## 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.

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