

Fetal Bovine Serum

Reliable serum supplementation for research cell culture

Triple 0.1 μm filtered | Defined quality limits | Lot-specific testing

Product overview

Leading Life Technologies Fetal Bovine Serum (FBS) is a light brown, clarified liquid derived from fetal bovine blood. It supplies proteins, amino acids, vitamins, lipids, hormones, growth factors, and binding proteins that support cell attachment, proliferation, and routine maintenance. The serum is aseptically collected, batch pooled, and triple filtered through 0.1 μm filters.

Key features

1. Collected from healthy cattle in non-epidemic areas; USA or USDA-approved origin.
2. Triple 0.1 μm filtration for clarified, sterile-filtered serum.
3. Defined limits for pH, total protein, hemoglobin, endotoxin, and osmolality.
4. Lot testing includes sterility, mycoplasma, and selected bovine viruses.

Typical applications

Routine mammalian cell culture; preparation of cell culture reagents; blocking and diluting solutions for immunological assays; and antibody, virus, and vaccine research workflows.

GENERAL CULTURE GUIDANCE Use 5-20% (v/v) FBS as a starting range and optimize for the cell line and process.

Quality release specifications

Parameter	General release criterion
Form / appearance	Liquid; light brown and clarified
Origin	USA or USDA-approved
Filtration	Triple 0.1 μm filtered
pH	7.0-8.0
Total protein	30-45 g/L
Hemoglobin	≤ 200 mg/L
Endotoxin	≤ 10 EU/mL
Osmolality	280-360 mOsm/kg
Sterility (bacteria and fungi)	No growth
Mycoplasma	Not detected
Bovine virus panel	BVDV, PI3, IBR, and BTv: not detected

Note: General specifications are shown. The lot-specific Certificate of Analysis governs product release.

PRODUCT INFORMATION

Ordering, storage and handling

Ordering information

Catalog No.	Product name	Size
FMS500	Fetal Bovine Serum	500 mL
FMS100	Fetal Bovine Serum	100 mL
FMS050	Fetal Bovine Serum	50 mL
FMS025	Fetal Bovine Serum	25 mL
FMS010	Fetal Bovine Serum	10 mL

Storage, transport and shelf life

Frozen storage. Store at -40°C to -10°C. Protect from light and large temperature shifts.

Transportation. Maintain below 0°C during transport.

Shelf life. 5 years from manufacture when unopened and stored as directed; verify the labeled expiration date.

After thawing. Store at 2-8°C and use within one month. Aliquot when practical to minimize repeat freeze-thaw cycles.

Recommended thawing procedure

- Transfer the frozen bottle to 2-8°C and thaw overnight.
- Finish thawing at room temperature while gently swirling or inverting to keep serum components evenly distributed.
- Do not hold serum warm longer than necessary and do not expose it to temperatures above 40°C.
- Mix thoroughly but gently before use or aliquoting. Use aseptic technique throughout handling.

Precipitates and turbidity

Fibrin and calcium phosphate precipitates can appear after thawing or prolonged storage and do not necessarily indicate loss of performance. If clarification is required, centrifuge at 500-1000 × g for 5-10 minutes and aseptically transfer the supernatant.

Persistent turbidity, unexpected odor, container damage, or abnormal cell-culture performance should be investigated as possible contamination; follow the laboratory's biosafety and disposal procedures.

Use and quality notes

- FBS is a biological material and natural lot-to-lot variation can occur. Prequalify lots for sensitive cell lines or critical processes.
- Consult the lot-specific Certificate of Analysis for actual test results and the Safety Data Sheet for safe handling information.
- This general datasheet does not replace the product label, Certificate of Analysis, or Safety Data Sheet.

INTENDED USE For research use or further manufacturing use only. Not for direct administration to humans or animals.