PRODUCT DESCRIPTION

Dialyzed Fetal Bovine Serum (FBS) is a high-quality, cell culture-grade serum derived from fetal bovine blood aseptically collected through cardiac puncture. The serum undergoes a specialized dialysis process using tangential flow filtration with a 10 kDa molecular weight cutoff (MWCO) membrane, which effectively removes small molecules.

COUNTRY OF ORIGIN

Biowest USA ensures full traceability of the FBS, with the country of origin specified in the Certificate of Analysis (CoA). For more detailed information, please refer to the technical data sheet for standard Fetal Bovine Serum (Ref. TDS-001).

Catalog Number	Description	Origin(s)
S148D	Dialyzed Fetal Bovine Serum	Refer to Certificate of Analysis
S162D		

INTENDED USE

Dialyzed FBS is ideal for a variety of in vitro applications, especially where a reduced concentration of small molecules is necessary for optimal cell growth and function. It is suited for research and cell culture applications where consistency and minimal interference from serum components are crucial.

COLLECTION SOURCE

Fetal Bovine Serum is derived from clotted whole blood, aseptically collected from the fetus via cardiac puncture. The serum is collected and treated in compliance with USDA regulations. Our vertical integration system ensures full traceability of the serum throughout all stages—from collection to production and final packaging.

QUALITY CONTROL PARAMETERS

1.1	pH: monitored and reported for each batch, with specifications provided in the Certificate of Analysis (CoA).
1.2	Osmolality: determined by the lowering of the freezing temperature, calibrated against standard solutions. Osmolality specifications are provided in the Certificate of Analysis.
1.3	Endotoxin: tested using USP 85 Photometric Quantitative Techniques. Test results are reported in the Certificate of Analysis.
1.4	Hemoglobin: measured by spectrophotometry. Results are provided in the Certificate of Analysis.
1.5	Total Protein: determined using a colorimetric assay. Results are reported in the Certificate of Analysis.
1.6	Sterility Testing: tested for the absence of aerobic and anaerobic bacteria, fungi, and yeast in compliance with 9CFR regulations. 9CFR regulations ensure that FBS is free from harmful microbial contamination, making it safe for use in sensitive cell culture applications.
1.7	Mycoplasma: tested via culture-based methods or PCR (Polymerase Chain Reaction), depending on customer requirements. Tested for absence of Mycoplasma.
1.8	Other Testing: Additional testing may be available upon request depending on customer needs.

FILTRATION

Final Filter Size: 0.2µm

TREATMENT PROCESS: DIALYZED SERUM	
The serum undergoes tangential flow filtration through a 10 kDa MWCO membrane, using 0.15M NaCl as the dialysate. The effectiveness of the dialysis is verified by testing glucose levels before and after the treatment. A glucose value of <5 mg/dL is required for successful dialysis.	
STORAGE CONDITIONS	
Store at ≤ -10°C, protected from light to maintain the serum's integrity.	
SHELF LIFE	
5 years from the date of manufacture when stored under the recommended conditions.	
HANDLING INSTRUCTIONS	
2.1	Thawing: Thaw the serum in a refrigerator (2°C to 8°C) or at room temperature. Avoid rapid thawing methods to preserve protein integrity.
2.2	Aliquoting: For optimal preservation, aliquot the serum after thawing using aseptic techniques.
2.3	Storage after Thawing: The serum is recommended for use immediately after thawing. If not all the serum is used, it can be stored at +2°C to +8°C for up to 26 weeks without a significant decrease in cell culture performance, provided sterility is maintained.
2.4	Repeated Freeze/Thaw Cycles: To maintain serum quality, avoid repeated freeze/thaw cycles. Always refreeze aliquots, not the entire bottle.
PRECAUTIONS AND SAFETY	
3.1	For Research Use Only: Not for human or animal consumption.
3.2	Protective Equipment: Always wear appropriate PPE, such as gloves, lab coats, and face protection, when handling the serum.
3.3	Aseptic Handling: Ensure that serum is handled under aseptic conditions (e.g., laminar flow hood) to prevent contamination.
REGULATORY INFORMATION	
Fetal Bovine Serum complies with relevant regulations set by the USDA and other international bodies for collection, processing, and use.	
DISPOSAL INSTRUCTIONS	
Dispose of unused serum and packaging according to local regulations for biological materials and hazardous waste.	
CERTIFICATE OF ANALYSIS (CoA)	
A Certificate of Analysis is provided with each batch and contains detailed specifications, including test results for sterility, endotoxin levels, and other quality control parameters.	
DISCLAIMER	
This product is not intended as an Active Pharmaceutical Ingredient (API). It is intended for research, diagnostics, and medical device manufacturing only. Before use, users should refer to the Certificate of Analysis (CoA) for specific lot details.	

For further information or inquiries, please contact Biowest USA Customer Service.