

	Technical Data Sheet	Ref: TDS-012
	Calf Serum	Rev: 1

PRODUCT DESCRIPTION

Biowest USA Calf Serum is a high-quality, aseptically collected serum derived from clotted whole blood of healthy calves. Sourced from the United States, this serum is processed and tested to ensure purity, consistency, and suitability for a wide range of in vitro applications. Each batch is rigorously controlled throughout every stage—from collection to final packaging—ensuring the highest level of quality and traceability.

COUNTRY OF ORIGIN

Biowest USA Calf Serum is sourced and collected in the United States, following strict animal health and safety protocols to ensure the highest quality and traceability standards.

Catalog Number	Description	Origin(s)
S0400	Calf Serum	United States

INTENDED USE

Biowest USA Calf Serum is rich in essential nutrients, growth factors, and hormones, making it ideal for use in cell culture and further manufacturing processes. This product is not intended for human or animal consumption and is not an Active Pharmaceutical Ingredient (API). It is strictly for laboratory and research applications.

COLLECTION SOURCE

When selecting serum, one of the most important factors to consider is its source, which ensures traceability. Each batch of Biowest USA Calf Serum is rigorously controlled throughout all stages—from the collection of the serum to its treatment, production, and final packaging at our facilities. The serum is aseptically collected from clotted whole blood and is treated in compliance with USDA requirements.

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.
1.7	Mycoplasma: tested via culture-based methods or PCR (Polymerase Chain Reaction), depending on customer requirements. Tested for absence of Mycoplasma.
1.8	Virus Testing: Testing is performed by inoculating permissive cell cultures and following the 9CFR 113.53c, 113.46, and 113.47 requirements. Each batch undergoes virus testing for the following pathogens: <ul style="list-style-type: none"> • Bovine Viral Diarrhea (BVD) • Infectious Bovine Rhinotracheitis (IBR) / BHV-1 • Parainfluenza Type 3 (PI3) • Bluetongue virus • Bovine Respiratory Syncytial Virus (BRSV)

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	<ul style="list-style-type: none"> • Reovirus • Rabies virus
1.9	Other Testing: Additional testing may be available upon request.
FILTRATION	
Final Filter Size: 0.2µm	
TREATMENT PROCESS-Heat Inactivation (Optional)	
Heat inactivation deactivates certain serum components that can interfere with cell culture. This process involves heating the serum to 56°C for 30 minutes. Heat treatment can affect serum proteins, which influence the performance of the serum in certain applications.	
Heat-inactivated serum meets the same quality standards as non-heat-treated serum. The process is carefully controlled to preserve the serum's essential nutrients and growth factors. A color change in the serum, which typically ranges from a yellowish to an opaque appearance, will occur. Color change does not indicate a loss of quality or effectiveness.	
Note: Heat inactivation is an optional service that must be specifically requested when ordering. Before using it, be sure to verify whether it is suitable for your particular cell culture requirements.	
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: If not all serum is used, thawed serum may be stored at 2°C to 8°C for up to 26 weeks without significant loss in quality, 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	
The serum is treated in accordance with strict animal health and safety standards to ensure the highest quality and traceability. Biowest USA adheres to all relevant regulatory guidelines and ensures that the product is safe, traceable, and compliant for research and laboratory applications.	
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, virus testing, and other quality control parameters.	

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DISCLAIMER
This product is intended for research or further manufacturing only. Not for use as an Active Pharmaceutical Ingredient (API) or food or animal feed. Before use, users should refer to the Certificate of Analysis (CoA) for specific details.

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