	<b>Technical Data Sheet</b>	Ref: TDS-002
	<b>Newborn Calf Serum</b>	Rev: 0

## PRODUCT DESCRIPTION

Biowest USA Newborn Calf Serum is a high-quality, aseptically collected serum derived from clotted whole blood of healthy calves. Sourced from the United States and New Zealand, this serum is processed under stringent quality control procedures, ensuring consistency, purity, and traceability. It is specifically designed to provide essential nutrients, hormones, and growth factors to support the growth and maintenance of cells in vitro.

## COUNTRY OF ORIGIN

The Biowest USA Newborn Calf Serum is sourced from the United States and New Zealand, adhering to strict animal health and safety protocols.

Catalog Number	Description	Origin(s)
<b>S0700</b>	Newborn Calf Serum	United States
		New Zealand

## INTENDED USE


Biowest USA Newborn Calf Serum is intended for in vitro research, cell culture, and further manufacturing applications. It is not for human or animal consumption and is not intended as an Active Pharmaceutical Ingredient (API). This product is strictly for research and laboratory use only.

## COLLECTION SOURCE

Newborn Calf Serum is derived from clotted whole blood and aseptically collected from healthy bovine calves. Each batch is rigorously controlled from serum collection through all stages of treatment, production, and final packaging. The serum is collected and treated in compliance with USDA regulations to ensure safety, quality, and traceability.

## 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"> <li>Bovine Viral Diarrhea (BVD)</li> <li>Infectious Bovine Rhinotracheitis (IBR) / BHV-1</li> <li>Parainfluenza Type 3 (PI3)</li> <li>Bluetongue virus</li> <li>Bovine Respiratory Syncytial Virus (BRSV)</li> </ul>

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	<ul style="list-style-type: none"> <li>• Reovirus</li> <li>• Rabies virus</li> </ul>
1.9	Other Testing: Additional testing may be available upon request.
<b>FILTRATION</b>	
Final Filter Size: 0.2µm	
<b>TREATMENT PROCESS</b>	
Not Applicable	
<b>STORAGE CONDITIONS</b>	
Store at ≤ -10°C, protected from light to maintain the serum's integrity	
<b>SHELF LIFE</b>	
<b>5 years</b> from the date of manufacture when stored under the recommended conditions.	
<b>HANDLING INSTRUCTIONS</b>	
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.
<b>PRECAUTIONS AND SAFETY</b>	
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.
<b>REGULATORY INFORMATION</b>	
Newborn Calf Serum is processed in compliance with USDA regulations, ensuring the highest standards of quality and traceability for research and laboratory use.	
<b>DISPOSAL INSTRUCTIONS</b>	
Dispose of unused serum and packaging according to local regulations for biological materials and hazardous waste.	
<b>CERTIFICATE OF ANALYSIS (CoA)</b>	
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.	
<b>DISCLAIMER</b>	
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.***