



**CERTIFICATE OF ANALYSIS**  
**GemCell™ Newborn Calf Serum**  
**(Catalog Number 100-504)**

Lot Number: C424049

**Date of Manufacture:** May2023

**Product Expiry:** May2027

**Origin:** United States

**Storage Temperature:** ≤ -10°C

For cell culture, further manufacturing or research use only. Not for direct therapeutic use.

**Product Description:** *GemCell™ Newborn Calf Serum is triple 0.1µm sterile filtered and is sourced from calves <20 days of age from U.S. or N.Z. origin.*

Test	Methodology	Specification	Analysis
<b>Biological Testing</b>			
Endotoxin	USP<85>/Ph. Eur. 2.6.14	Test and Report	<0.25 EU/mL
Hemoglobin	USP <857>	Test and Report	6 mg/dL
<b>Microbiological Testing</b>			
Sterility			
Bacteria	USP<71>/Ph. Eur. 2.6.1	No Growth	No Growth
Fungi	USP<71>/Ph. Eur. 2.6.1	No Growth	No Growth
Mycoplasma	USP<63>/Ph. Eur. 2.6.7	Not Detected	Not Detected
<b>Viral Testing</b>			
Bovine Viral Diarrhea	9CFR 113.53	Not Detected	Not Detected
IBR	9CFR 113.46	Not Detected	Not Detected
Para Influenza 3 Virus (PI3)	9CFR 113.46	Not Detected	Not Detected
BPV	9CFR 113.53	Not Detected	Not Detected
Rabies Virus	9CFR 113.53	Not Detected	Not Detected
<b>Physical Testing</b>			
Osmolality	USP<785>/Ph. Eur. 2.2.35	Test and Report	299 mOsm/kg
pH @ RT	USP <791>/Ph. Eur. 2.2.3	Test and Report	7.78
<b>Biochemistry Testing</b>			
Albumin		Test and Report	2.8 g/dL
ALT (SGPT)		Test and Report	10 U/L
AST (SGOT)		Test and Report	32 U/L
Bilirubin, Total		Test and Report	0.9 mg/dL
BUN		Test and Report	18 mg/dL
Calcium		Test and Report	9.0 mg/dL
Chloride		Test and Report	96 mmol/L
Cholesterol		Test and Report	51 mg/dL
Creatinine		Test and Report	1.10 mg/dL
Glucose		Test and Report	66 mg/dL
Iron, Serum		Test and Report	74 µg/dL



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Phosphorus		Test and Report	7.2 mg/dL
Potassium		Test and Report	6.0 mmol/L
Protein, Total	USP <1057>/Ph. Eur. 2.5.33	Test and Report	5.4 g/dL
Sodium		Test and Report	140 mmol/L
Uric Acid		Test and Report	0.8 mg/dL

Our bovine serum meets all USDA requirements and has passed ante- and post-mortem inspection. It is collected in countries recognized as being free of foot-and-mouth disease and rinderpest. The origin of all bovine serum is traceable by lot number, date and country of collection. Precipitates may develop in this product upon freezing and/or thawing; this occurrence does not impact culture performance.

The testing that has been performed as part of this lot release has been reviewed by Quality Assurance personnel and has confirmed that the testing meets the specifications presented on this Certificate of Analysis.

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Levi Immoos  
Name

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16 DEC 2024  
Date

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QC Associate I  
Title