



**CERTIFICATE OF ANALYSIS**  
**GemCell™ Newborn Calf Serum**  
**≤14 days of age**  
**(Catalog Number 100-504)**

Lot Number: C423009

Date of Manufacture: Jun2021

Product Expiry: Jun2026

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 sterile-filtered through a 0.2 µm filter prior to freezing.

Test	Methodology	Specification	Analysis
<b>Biological Testing</b>			
Endotoxin	LAL	Test and Report	<0.100 EU/mL
Hemoglobin	USP<90>	Test and Report	10.45 mg/dL
<b>Microbiological Testing</b>			
Sterility	9CFR 113.26		
Bacteria		No Growth	No Growth
Fungi		No Growth	No Growth
Mycoplasma	PCR	Not Detected	Not Detected
<b>Viral Testing</b>			
	9 CFR 113.53c, 113.46, 113.47		
Bovine Viral Diarrhea		Not Detected	Not Detected
IBR		Not Detected	Not Detected
Para Influenza 3 Virus (PI3)		Not Detected	Not Detected
BPV		Not Detected	Not Detected
Rabies Virus		Not Detected	Not Detected
<b>Physical Testing</b>			
Osmolality	Osmometer	Test and Report	276.0 mOsm/kg H <sub>2</sub> O
pH@RT	pH Meter	Test and Report	7.8
<b>Biochemistry</b>			
	Chemistry Analyzer		
Albumin		Test and Report	3 g/dL
ALT (SGPT)		Test and Report	22 IU/L
AST (SGOT)		Test and Report	76 IU/L
Bilirubin, Total		Test and Report	0.70 mg/dL
BUN		Test and Report	16.0 mg/dL
Calcium		Test and Report	9.8 mg/dL
Chloride		Test and Report	93 mEq/L
Cholesterol		Test and Report	50 mg/dL



**GeminiBio**

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Test	Methodology	Specification	Analysis
Creatinine		Test and Report	1 mg/dL
Glucose		Test and Report	66 mg/dL
Iron, Serum		Test and Report	83.0 µg/dL
Phosphorus		Test and Report	6.8 mg/dL
Potassium		Test and Report	5.9 mEq/L
Protein, Total		Test and Report	5.4 g/dL
Sodium		Test and Report	136.0 mEq/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 by a licensed veterinarian. 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.

Karen Zuniga

Name

QA Associate I

Title

17APR2023

Date