



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

Lot Number: C423010

Date of Manufacture: May2021

Product Expiry: May2026

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
Biological Testing			
Endotoxin	LAL	Test and Report	0.77 EU/mL
Hemoglobin	USP<90>	Test and Report	11.91 mg/dL
Microbiological Testing			
Sterility	9CFR 113.26		
Bacteria		No Growth	No Growth
Fungi		No Growth	No Growth
Mycoplasma	PCR	Not Detected	Not Detected
Viral Testing	9CFR 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
Physical Testing			
Osmolality	Osmometer	Test and Report	279.0 mOsm/kg H ₂ O
pH@RT	pH Meter	Test and Report	8.33
Biochemistry	Chemistry Analyzer		
Albumin		Test and Report	2.9 g/dL
ALT (SGPT)		Test and Report	23 IU/L
AST (SGOT)		Test and Report	82 IU/L
Bilirubin, Total		Test and Report	1.10 mg/dL
BUN		Test and Report	17 mg/dL
Calcium		Test and Report	10.1 mg/dL
Chloride		Test and Report	94 mEq/L
Cholesterol		Test and Report	50 mg/dL



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Creatinine		Test and Report	1.0 mg/dL
Glucose		Test and Report	64 mg/dL
Iron, Serum		Test and Report	87 µg/dL
Phosphorus		Test and Report	7.1 mg/dL
Potassium		Test and Report	5.8 mEq/L
Protein, Total		Test and Report	5.60 g/dL
Sodium		Test and Report	138 mEq/L
Uric Acid		Test and Report	0.7 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