



CERTIFICATE OF ANALYSIS
GemCell™ Bovine Calf Serum
(Catalog Number 100-506)

Lot Number: C36J00L

Date of Manufacture: JAN2020

Origin: United States

Product Expiry: JAN2025

For Cell culture, Further Manufacturing or Research use Only. Not for Direct Therapeutic Use.

Storage Temperature: ≤ -10°C

Product description: GemCell™ Bovine Calf Serum is sterile-filtered through a 0.2 µm filter prior to freezing.

Test	Methodology	Specification	Analysis
Biological Testing			
Endotoxin	USP<85>	Test and Report	2.00 EU/mL
Microbiological Testing			
Sterility	USP<71>		
Bacteria		No Growth	No Growth
Fungi		No Growth	No Growth
Mycoplasma	Barile, MF and Kern, J (1971)	Not Detected	Not Detected
Viral Testing			
	9CFR BVB, PI-3, IBR and BT only		
Bovine Viral Diarrhea		Not Detected	Not Detected
IBR		Not Detected	Not Detected
Para Influenza 3 Virus (PI3)		Not Detected	Not Detected
BTV		Not Detected	Not Detected
Physical Testing			
Osmolality	USP <785>	Test and Report	299 mOsm/kg
pH	USP<791>	Test and Report	7.90
Biochemistry			
Albumin		Test and Report	2.9 g/dL
Alkaline Phosphatase		Test and Report	71 U/L
ALT (SGPT)		Test and Report	14 U/L
AST (SGOT)		Test and Report	72 U/L
Bilirubin, Total		Test and Report	0.3 mg/dL
BUN		Test and Report	10 mg/dL
Calcium		Test and Report	8.8 mg/dL
Chloride		Test and Report	96 mmol/L
Cholesterol		Test and Report	72 mg/dL
Creatinine		Test and Report	1.1 mg/dL
Glucose		Test and Report	79 mg/dL



Test	Methodology	Specification	Analysis
Hemoglobin	Fleming, AF and Woolf, AJ(1965)	Test and Report	11.4 mg/dL
Iron, Serum		Test and Report	103 µg/dL
Phosphorus		Test and Report	7.0 mg/dL
Potassium		Test and Report	5.8 mmol/L
Protein, Total		Test and Report	8.0 g/dL
Sodium		Test and Report	139 mmol/L
Triglycerides		Test and Report	13 mg/dL
Uric Acid		Test and Report	1.1 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.

Megha Khalasi
Name

QA Associate III
Title

06 Mar 2020
Date