



**CERTIFICATE OF ANALYSIS**  
**GemCell™ Fetal Bovine Serum**  
**(Catalog Number 100-500)**

Lot Number: A424050

Date of Manufacture: May2024

Product Expiry: May2029

Origin: United States

Storage Temperature: ≤ -10°C

For Cell Culture, further Manufacturing or Research use only. Not for direct Therapeutic use.

**Product Description:** *GemCell™ Fetal Bovine Serum is sterile-filtered through a 0.1 µm filter prior to freezing.*

Test	Methodology	Specification	Analysis
<b>Biological Testing</b>			
Endotoxin	USP<85>/Ph. Eur. 2.6.14	<10.0 EU/mL	<0.25 EU/mL
Hemoglobin	USP<857>	<20.0 mg/dL	3 mg/dL
<b>Microbiological Testing</b>			
Sterility	USP<71>/Ph.Eur.2.6.1		
Bacteria		No Growth	No Growth
Fungi		No Growth	No Growth
Mycoplasma	USP<63>/Ph. Eur. 2.6.7	Not Detected	Not Detected
<b>Viral Testing</b>	9CFR 113.53c [113.46, 113.47]		
Cytopathic Agents		Not Detected	Not Detected
Hemadsorbing Agents		Not Detected	Not Detected
Extraneous Viruses (FAb)			
Bluetongue Virus		Not Detected	Not Detected
Bovine Adenovirus		Not Detected	Not Detected
Bovine Parvovirus		Not Detected	Not Detected
Bovine Viral Diarrhea (Cytopathic)		Not Detected	Not Detected
Bovine Respiratory Syncytial Virus		Not Detected	Not Detected
Rabies Virus		Not Detected	Not Detected
Reovirus		Not Detected	Not Detected
<b>Physical Testing</b>			
Electrophoretic Pattern		Normal	Normal
Osmolality	USP<785>/Ph. Eur. 2.2.35	260 – 350 mOsm/ kg	315 mOsm/kg
pH	USP<791>/Ph. Eur. 2.2.3	6.5 – 8.5	7.18
<b>Biochemistry</b>			
Albumin		Test and Report	2.4 g/dL
Alkaline Phosphatase		Test and Report	238 U/L
ALT (SGPT)		Test and Report	5 U/L
AST (SGOT)		Test and Report	27 U/L
GGT		<10 U/L	5.0 U/L



**CERTIFICATE OF ANALYSIS**  
**GemCell™ Fetal Bovine Serum**  
**(Catalog Number 100-500)**

Lot Number: A424050

Test	Methodology	Specification	Analysis
Bilirubin, Total		Test and Report	0.2 mg/dL
BUN		Test and Report	16 mg/dL
Calcium		Test and Report	14.3 mg/dL
Chloride		Test and Report	105 mmol/L
Cholesterol		Test and Report	27 mg/dL
Cortisol		Test and Report	0.264 µg/dL
Creatinine		Test and Report	2.80 mg/dL
Glucose		Test and Report	125 mg/dL
IgG		<0.300 mg/mL*	0.1 mg/mL
Insulin		Test and Report	6.11 µIU/mL
Iron, Serum		Test and Report	162 µg/dL
Phosphorus		Test and Report	10.3 mg/dL
Potassium		Test and Report	13.4 mmol/L
Progesterone		Test and Report	<0.06 ng/mL
Protein, Total	USP<1057> Ph. Eur. 2.5.33	2.5 – 6.0 g/dL	3.5 g/dL
Sodium		Test and Report	146 mmol/L
Testosterone		Test and Report	0.01 ng/mL
T3		Test and Report	160 ng/dL
T4		Test and Report	13.1 µg/dL
Triglycerides		Test and Report	71 mg/dL
Uric Acid		Test and Report	2.6 mg/dL

Our fetal 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 fetal 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. \*Some geographic regions may test higher than 0.300 mg/mL. If this be the case, refer to GGT results less than 10 U/L to ensure FBS purity.

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.

Sofia Tang  
Name

10 SEP 2024  
Date

QC Associate II  
Title