



CERTIFICATE OF ANALYSIS
BenchMark™ Fetal Bovine Serum
(Catalog Number 100-106)

Lot Number: A021023

Date of Manufacture: AUG2021

Product Expiry: AUG2026

Origin: Mexico

Storage Temperature: ≤ -10°C

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

Product description: BenchMark™ Fetal Bovine Serum is sterile-filtered through a 0.1 µm filter prior to freezing.

Test	Methodology	Specification	Analysis
Biological Testing			
Endotoxin	USP<85>, EP 2.6.14	<10.0 EU/mL	<0.250 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	12.13 mg/dL
Microbiological Testing			
Sterility			
Bacteria	USP<71>, EP 2.6.1	No Growth	No Growth
Fungi		No Growth	No Growth
Mycoplasma	Barile, MF and Kern, J (1971), EP 2.6.7/PCR	Not Detected	Not Detected
Viral Testing			
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 Syncytial Virus		Not Detected	Not Detected
Bovine Rabies Virus		Not Detected	Not Detected
Reovirus		Not Detected	Not Detected



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Test	Methodology	Specification	Analysis
Physical Testing			
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal
Osmolality	USP<785>, EP 2.2.35	260 – 350 mOsm/ kg	299 mOsm/kg
pH@RT	USP<791>	6.5 – 8.5	7.25
Biochemistry			
Albumin		Test and Report	2.0 g/dL
Alkaline Phosphatase		Test and Report	279 IU/L
ALT (SGPT)		Test and Report	5 IU/L
AST (SGOT)		Test and Report	28 IU/L
GGT		<10 U/L	5 IU/L
Bilirubin, Total		Test and Report	0.2 mg/dL
BUN		Test and Report	17 mg/dL
Calcium		Test and Report	13.4 mg/dL
Chloride		Test and Report	99 mmol/L
Cholesterol		Test and Report	29 mg/dL
Cortisol		Test and Report	0.331 µg/dL
Creatinine		Test and Report	3.1 mg/dL
Glucose		Test and Report	88 mg/dL
IgG	ELISA	<0.300 mg/mL*	0.162 mg/mL
Insulin		Test and Report	6.70 µIU/mL
Iron, Serum		Test and Report	167 µg/dL
Phosphorus		Test and Report	9.2 mg/dL
Potassium		Test and Report	>10.0 mmol/L
Progesterone		Test and Report	<0.1 ng/mL
Protein, Total	Biuret	2.5 – 6.0 g/dL	3.7 g/dL
Sodium		Test and Report	137 mmol/L
Testosterone		Test and Report	<0.01 ng/mL
T3		Test and Report	118 ng/dL
T4		Test and Report	22.0 µg/dL
Triglycerides		Test and Report	64 mg/dL
Tetracycline		<4 ng/mL	1.38 ng/mL
Uric Acid		Test and Report	3.0 mg/dL



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Our fetal 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 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.

Karen Zuniga
Name
27JAN2022
Date

QA Associate I
Title