

### **CERTIFICATE OF ANALYSIS**

### Dialyzed Fetal Bovine Serum

#### (Catalog Number 100-108)

Lot Number: A62H02L

Date of Manufacture: Jul2020

Product Expiry: Jul2025

Origin: United States

Storage Temperature: ≤ -10°C

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

**Product description:** Dialyzed 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	<0.1 EU/mL	
Hemoglobin		<20.0 mg/dL	11.17 mg/dL	
Microbiological Testing			-	
Sterility	USP<71>, EP 2.6.1			
Bacteria		No Growth	No Growth	
Fungi		No Growth	No Growth	
Mycoplasma		Not Detected	Not Detected	
Viral Testing	9CFR113.53c[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	
<b>Bovine Adenovirus</b>		Not Detected	Not Detected	
<b>Bovine Parvovirus</b>		Not Detected	Not Detected	
Bovine Viral		Not Detected	Not Detected	
Diarrhea(cytopathic)				
Bovine Respiratory		Not Detected	Not Detected	
Syncytial Virus				
Rab <mark>ies Virus</mark>		Not Detected	Not Detected	
Reovirus		Not Detected	Not Detected	
Physical Testing				
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal	
Osmolality	USP<785>, EP 2.2.35	260-350mOsm/kg	285 mOsm/kg	
pH@RT	USP<791>, EP 2.2.3	6.5 - 8.5	7.14	
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Biochemistry Albumin Test and Report 1.9 Alkaline Phosphatase Test and Report 151 ALT (SGPT) Test and Report 24 AST (SGOT) Test and Report 24 Bilirubin, Total Test and Report 0.2 m BUN Test and Report 0.2 m BUN Test and Report 0.2 m BUN Test and Report 0.2 m Calcium Test and Report 1.9 m Chloride Test and Report 1.9 m Chloride Test and Report 1.9 m Cholesterol Test and Report 1.9 m Cortisol Test and Report 0.0 m Calcium Test and Report 0.0 m Cliucose Test and R	Test	Method	lology	Specification	Analysis	
Albumin Test and Report 1.9 Alkaline Phosphatase Test and Report 151 ALT (SGPT) Test and Report 24 AST (SGOT) Test and Report 24 Bilirubin, Total Test and Report 30.2 m BUN Test and Report 30.2 m BUN Test and Report 30.2 m Calcium Test and Report 30.2 m Calcium Test and Report 30.2 m Chloride Test and Report 30.2 m Cholesterol Test and Report 30.2 m Cortisol Test and Report 30.2 m Calcium Test and Report 30.2 m Cortisol Test and Report 30.3 m Cortisol Test and Report 30.3 m Contisol Test and Report 30.3 m					Pre-Strip	Post-Strip
Alkaline Phosphatase  ALT (SGPT)  ALT (SGPT)  AST (SGOT)  GGT  SIBIlirubin, Total  Bilirubin, Total  Bilirubin, Total  BUN  Calcium  Calcium  Chloride  Cholesterol  Cortisol  Creatinine  Glucose  IEST and Report  IEST and Report  Test and Report  Cortisol  Creatinine  Test and Report  Test and Report  Country  Test and Report	Biochemistry					
ALT (SGPT)  AST (SGOT)  AST (SGOT)  GGT  SIBIN  Calcium  Calcium  Chloride  Cholesterol  Creatinine  Glucose  IngG  ELISA  Insulin  Irest and Report  Test and Report  Test and Report  Test and Report  Test and Report  Consisium  Test and Report  Contisol  Creatinine  Test and Report  Test and Report  Contisol  Creatinine  Test and Report  Test and Report  Test and Report  Contisol  Test and Report  Test and Rep	Albumin			Test and Report		1.9 g/dL
AST (SGOT)  GGT  <10 U/L  Bilirubin, Total  BUN  Test and Report  Calcium  Calcium  Chloride  Cholesterol  Creatinine  Glucose  IEST and Report  IEST and Report  Test and Report  Cortisol  Creatinine  Test and Report  Test and Report  Test and Report  Test and Report  Cloreatinine  Test and Report  Test and Rep	Alkaline Phosphatase			Test and Report		151 IU/L
GGT	ALT (SGPT)			<b>Test and Report</b>		4 IU/L
Bilirubin, Total BUN Test and Report Test and	AST (SGOT)			Test and Report		24 IU/L
BUN         Test and Report         0 m           Calcium         Test and Report         1.9 m           Chloride         Test and Report         142 m           Cholesterol         Test and Report         28 m           Cortisol         Test and Report         0.201           Creatinine         Test and Report         0.0 n           Glucose         Test and Report         <10 m	GGT			<10 U/L		4 IU/L
Calcium Chloride Chloride Cholesterol Cholesterol Cortisol Creatinine Glucose IgG ELISA Iron, Serum Phosphorus Potagsium Potagsium Potagetrone Progesterone Protein, Total Sodium Test and Report Test and Rep	Bilirubin, Total			Test and Report		0.2 mg/dL
Chloride Cholesterol Cholesterol Cortisol Creatinine Glucose IgG ELISA Iron, Serum Phosphorus Potassium Potassium Progesterone Progesterone Protein, Total Sodium Test and Report Test and Rep	BUN			Test and Report		0 mg/dL
Cholesterol Cortisol Creatinine Creatinine Glucose Glucose Itest and Report IgG ELISA Co.300 mg/mL* Iron, Serum Phosphorus Potassium Progesterone Protein, Total Sodium Test and Report Test a	Calcium			Test and Report		1.9 mg/dL
Cortisol Creatinine Creatinine Clucose	Chloride			Test and Report		142 mmol/dL
Creatinine Glucose Glucose IgG ELISA Solium Progesterone Protein, Total Solium Test and Report	Cholesterol			Test and Report		28 mg/dL
Glucose  IgG ELISA <0.300 mg/mL* 0.0616 Insulin Test and Report 3.21 µ Iron, Serum Test and Report 171 µ Phosphorus Test and Report 0.3 n Potassium Test and Report <1.0 n Progesterone Test and Report <0.1 n Protein, Total 2.5 - 6.0 g/dL 3.3 Sodium Test and Report 157 m Testosterone Test and Report 157 m Testosterone Test and Report 121 n Test and Report 121 n Test and Report 121 n Test and Report 14.0 m Test and Report 10.0 n Test a	Cortisol			Test and Report		0.201 μg/dL
IgG ELISA <0.300 mg/mL* 0.0616 Insulin Test and Report 3.21 µ Iron, Serum Test and Report 171 µ Phosphorus Test and Report 0.3 m Potassium Test and Report <1.0 m Progesterone Test and Report <0.1 m Protein, Total 2.5 - 6.0 g/dL 3.3 Sodium Test and Report 157 m Testosterone Test and Report <0.01 m Test and Report 157 m Testosterone Test and Report 121 m Test and Report 121 m Test and Report 121 m Test and Report 14.0 m Triglycerides Test and Report <10 m Test and Report 14.0 m Test and Report <10 m Tes	Creatinine			Test and Report		0.0 mg/dL
Insulin Test and Report 3.21 µ Iron, Serum Test and Report 171 µ Phosphorus Test and Report 0.3 n Potassium Test and Report <1.0 n Progesterone Test and Report <0.1 n Protein, Total 2.5 – 6.0 g/dL 3.3 Sodium Test and Report 157 m Testosterone Test and Report <0.01 m Test and Report 157 m Testosterone Test and Report 121 n Test and Report 121 n Test and Report 14.0 Triglycerides Test and Report <10 n Test and Report	Glucose			Test and Report		<10 mg/dL
Iron, Serum Phosphorus Potassium Progesterone Protein, Total Sodium Test and Report Test and Report Pest and Report Test and R	IgG	ELISA		<0.300 mg/mL*		0.0616 mg/ml
PhosphorusTest and Report0.3 mPotassiumTest and Report<1.0 m	Insulin			Test and Report		3.21 μIU/mL
Potassium Progesterone Progesterone Protein, Total Sodium Test and Report	Iron, Serum			Test and Report		171 μg/dL
ProgesteroneTest and Report<0.1Protein, Total $2.5-6.0 \text{ g/dL}$ $3.3$ SodiumTest and Report $157 \text{ m}$ TestosteroneTest and Report<0.01	Phosphorus			Test and Report		0.3 mg/dL
Protein, Total         2.5 - 6.0 g/dL         3.3           Sodium         Test and Report         157 m           Testosterone         Test and Report         <0.01	Potassium			Test and Report		<1.0 mmol/L
Sodium Test and Report 157 m Testosterone Test and Report <0.01 T3 Test and Report 121 m T4 Test and Report 14.0 Triglycerides Test and Report <10 m Tetracycline <4 mg/mL <1.0 m	Progesterone			Test and Report		<0.1 ng/mL
Testosterone Test and Report <0.01 T3 Test and Report 121 r T4 Test and Report 14.0 Triglycerides Test and Report <10 r Tetracycline <4 ng/mL <1.0 r	Protein, Total			2.5 - 6.0 g/dL		3.3 g/dL
T3 Test and Report 121 r T4 Test and Report 14.0 Triglycerides Test and Report <10 r Tetracycline <4 ng/mL <1.0 r	Sodium			Test and Report		157 mmol/L
T4 Test and Report 14.0 Triglycerides Test and Report <10 r Tetracycline <4 ng/mL <1.0	Testosterone			Test and Report		<0.01 ng/mL
Triglycerides Test and Report <10 r Tetracycline <4 ng/mL <1.0	T3			Test and Report		121 ng/mL
Triglycerides Test and Report <10 r Tetracycline <4 ng/mL <1.0 r	T4			Test and Report		14.0 μg/dL
· · · · · · · · · · · · · · · · · · ·	Triglycerides			Test and Report		<10 mg/dL
Uric Acid Test and Report 0.1 r	Tetracycline			<4 ng/mL		<1.0 ng/mL
	Uric Acid			Test and Report		0.1 mg/dL



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## Dialyzed Fetal Bovine Serum

(Catalog Number 100-108)

Lot Number: A62H02L

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.

VANESSA YOUNG	QA ASSOCIATE 11			
Name	Title			
16NOV2022				
Date				