



Certificate of Analysis

Created October 16, 2013

Product: **BenchMark™ Fetal Bovine Serum**
Triple 0.1µm sterile-filtered

Catalog #: 100-106
Lot #: A00E03E
Origin: United States

Manufacture Date: Jun 2013
Expiration Date: May 2018

TEST	METHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	<10.0 EU/mL	0.8 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	13.79 mg/dL
Microbiological Testing			
Sterility	USP<71>		
Bacteria		Not Detected	Not Detected
Fungi		Not Detected	Not Detected
Mycoplasma	Barile, MF and Kern, J (1971)	Not Detected	Not Detected
Viral Testing			
	9 CFR 113.53c [113.46, 113.47]		
Cytopathic Agents		Not Detected	Not Detected
Hemadsorbing Agents		Not Detected	Not Detected
Bovine Viral Diarrhea Ab Titer			1:1
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
Physical Testing			
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal
Osmolality	USP<785>	260-350 mOsm/kg	302 mOsm/kg
pH @ RT	USP<791>	6.5 - 8.5	7.7

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Albumin			2.6 g/dL
Alkaline Phosphatase			161.0 U/L
ALT (SGPT)			6.0 U/L
AST (SGOT)			38.0 U/L
Bilirubin, Total			0.3 mg/dL
BUN			12 mg/dl
Calcium			3.08 mM
Chloride			101 mM
Cholesterol			<40 mg/dL
Cortisol			N/A
Creatinine			2.5 mg/dL
Estrogen			N/A
Glucose			7.2 mM
IgG	ELISA		N/A
Insulin			N/A
Iron, Serum			N/A
Phosphorus			2.39 mM
Potassium			>8 mM
Progesterone			N/A
Protein, Total	Biuret	2.5-6.0 g/dL	N/A
Sodium			142 mM
Testosterone			N/A
T3			N/A
T4			N/A
Triglycerides			24 mg/dL
Tetracycline			N/A
Uric Acid			2.7 mg/dL

Results shown were obtained by carefully performed methods believed to be reliable. However, since some results may vary by methodology, it is suggested that tests for which results are particularly critical be repeated by the end user. 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.