



Certificate of Analysis

Revised October 2, 2014

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

Catalog #: 100-106
Lot #: A58E01F
Origin: Mexico

Manufacture Date: Jul 2014
Expiration Date: Jul 2019

TEST	METHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	<10.0 EU/mL	0.9 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	9.4 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			1:8
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	277 mOsm/kg
pH @ RT	USP<791>	6.5 – 8.5	7.7

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Albumin			2.5 g/dL
Alkaline Phosphatase			190 U/L
ALT (SGPT)			4.0 U/L
AST (SGOT)			22.0 U/L
Bilirubin, Total			0.2 mg/dL
BUN			14.0 mg/dl
Calcium			2.85 mM
Chloride			97 mM
Cholesterol			25.0 mg/dL
Cortisol			61.5 nM
Creatinine			2.4 mg/dL
Estrogen			158.2 pM
Glucose			5.66 mM
IgG	ELISA		0.02 mg/mL
Insulin			46.5 pM
Iron, Serum			156 ug/dL
Phosphorus			2.75 mM
Potassium			12.1 mM
Progesterone			0.413 nM
Protein, Total	Biuret	2.5-6.0 g/dL	3.8 g/dL
Sodium			133 mM
Testosterone			0.24 nM
T3			2.28 nM
T4			156.6 nM
Triglycerides			53 mg/dL
Tetracycline			<4 ng/mL
Uric Acid			2.6 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.