

CERTIFICATE OF ANALYSIS

Product:Fetal Bovine SerumGrade:UltimatePart Number:1600Lot Number:073B11

Product Origin: Filtration: Manufacture Date: Expiration Date: Storage: Collected and Processed in USA Triple 0.1µm Sterile Filtered March 2011 April 2016 -10°C to -20°C

CERTIFIED ANALYSIS

Test/Method Bovine Viral Diarrhea Virus (qPCR Technology) Endotoxin (Limulus Amebocyte Lysate-Gel Clot, USP 85) Hemoglobin (Fleming & Woolf) Sterility (Current USP for Bacteria & Fungi) Mycoplasma (Barile & Kern; Large Volume, Direct Culture) pH (USP 791)	Unit of Measure N/A EU/mL mg/dL N/A N/A N/A	Specification Not Detected ≤5 <25 No Growth Not Detected Test & Report	Result Not Detected <0.12 9.1 No Growth Not Detected 7.3
Osmolality (USP 785) Virus Testing (9 CFR 113.53c)	mOsm/KgH20	Test & Report	308.0
Bluetongue Bovine Adenovirus Bovine Parvovirus Bovine Respiratory Syncytial Virus Bovine Viral Diarrhea Virus Rabies Reovirus Cytopathogenic Agents (IBR) Hemadsorbing Agents (PI3)	N/A N/A N/A N/A N/A N/A N/A	Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected	Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected Not Detected

BIOCHEMICAL ASSAY

Test/Method	Unit of Measure	Result	Test/Method	Unit of Measure	Result
Albumin	gm/dL	1.9	Phosphorus	mg/dL	3.5
Alkaline Phosphatase	U/L	218.0	Potassium	mEq/L	>10.0
ALT (SGPT)	U/L	8.0	Protein – Total	gm/dL	3.3
AST (SGOT)	U/L	63.0	Serum Iron	μg/dL	181.0
Bilirubin – Total	mg/dL	0.2	Sodium	mEq/L	134
Calcium	mg/dL	13.4	Triglyceride	mg/dL	72.0
Chloride	mEq/L	98.0	Urea Nitrogen (BUN)	mg/dL	13.0
Cholesterol	mg/dL	35.0	Uric Acid	mg/dL	1.8
Creatinine	mg/dL	2.1			
Glucose	U/L	97.0	Electrophoretic Profile		
			Alpha	gm/dL	1.1
			Beta	gm/dL	0.3
			Gamma	gm/dL	0.0
			Albumin %	N/A	58.0%
			Alpha %	N/A	34.5%

Beta %

Gamma %

N/A

N/A

7.0%

0.4%

STATEMENTS

Statement of Origin: This product was manufactured from fetal bovine blood collected exclusively from approved harvest facilities. All fetal bovine serum used in this product is derived from fetuses collected from cows that are of United States origin and have passed ante- and post-mortem inspection. All harvest facilities are USDA inspected and located within the continental United States of America. All collection and processing activities are performed under the strict guidance of standard operating procedures.

Statement of Intended Use: This product is intended for further manufacturing or research use. This product is not intended for human or therapeutic use.

ISIA Certified Traceability: All raw serum is certified by the International Serum Industry Association (ISIA) to be sourced in accordance with their strict traceability guidelines (www.serumindustry.org).

ISIA Compliant Documentation: This document complies with all documentation standards issue by the ISIA regarding the definition, quality control, country of origin and certified analysis of fetal bovine serum (www.serumindustry.org).



QC DEPARTMENT APPROVAL

Electronic Signature: Devin Davis Date: 16 May 2011