CERTIFICATE OF ANALYSIS

Product:	Fetal Bovine Serum	**Product Origin:**	Collected and Processed in USA
Grade:	Ultimate	**Filtration:**	Triple 0.1µm Sterile Filtered
Part Number:	1600	**Manufacture Date:**	June 2013
Lot Number:	177B13	**Expiration Date:**	July 2018
		Storage:	-10°C to -20°C

CERTIFIED ANALYSIS

Test/Method	Unit of Measure	Specification	Result
Bovine Viral Diarrhea Virus (qPCR Technology)	N/A	Not Detected	Not Detected
Endotoxin (Limulus Amebocyte Lysate-Gel Clot, USP 85)	EU/mL	≤5	<0.13
Hemoglobin (Fleming & Woolf)	mg/dL	≤10	12.3
Sterility (Current USP for Bacteria & Fungi)	N/A	No Growth	No Growth
Mycoplasma (Barile & Kern; Large Volume, Direct Culture)	N/A	Not Detected	Not Detected
pH (USP 791)	N/A	Test & Report	7.0
Osmolality (USP 785)	mOsm/KgH20	Test & Report	294.0
Virus Testing (9 CFR 113.53c)			
Bluetongue	N/A	Not Detected	Not Detected
Bovine Adenovirus	N/A	Not Detected	Not Detected
Bovine Parvovirus	N/A	Not Detected	Not Detected
Bovine Respiratory Syncytial Virus	N/A	Not Detected	Not Detected
Bovine Viral Diarrhea Virus	N/A	Not Detected	Not Detected
Rabies	N/A	Not Detected	Not Detected
Reovirus	N/A	Not Detected	Not Detected
Cytopathogenic Agents (IBR)	N/A	Not Detected	Not Detected
Hemadsorbing Agents (PI3)	N/A	Not Detected	Not Detected

BIOCHEMICAL ASSAY

Test/Method	Unit of Measure	Result	Test/Method	Unit of Measure	Result
Albumin	gm/dL	2.3	Phosphorus	mg/dL	9.4
Alkaline Phosphatase	U/L	235.0	Potassium	mEq/L	>10.0
ALT (SGPT)	U/L	8.0	Protein – Total	gm/dL	3.6
AST (SGOT)	U/L	42.0	Sodium	mEq/L	138.0
Bilirubin – Total	mg/dL	0.2	Triglyceride	mg/dL	53.0
Calcium	mg/dL	13.8	Urea Nitrogen (BUN)	mg/dL	15.0
Chloride	mEq/L	100.0	Uric Acid	mg/dL	2.5
Cholesterol	mg/dL	29.0	Electrophoretic Profile Cellulose Acetate	N/A	Definitive
Creatinine	mg/dL	2.5			
Glucose	U/L	102.0			

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: 20 August 2013