

CERTIFICATE OF ANALYSIS

Fetal Bovine Serum, USDA Origin

Lot#: A13020

Manufactured Date: December 11, 2013
 Country of Raw Material Origin: Guatemala
 Filtration: Triple 0.1 µm filtered

Expiration Date: December 31, 2018
 Country of Final Processing: United States
 Storage: ≤ -20°C

TEST	METHOD	UNIT	SPECIFICATIONS	RESULTS
Appearance		N/A	Clear Amber Liquid	Pass
Sterility		N/A	Negative for Growth	Pass
Bacteria and Fungi	USP<71>	N/A	Not Detected	Not Detected
Mycoplasma	Barile	N/A	Not Detected	Not Detected
DNA	Fluorochrome	N/A	Not Detected	Not Detected
Virus Testing	9CFR113.53			
BAV1		N/A	Not Detected	Not Detected
BAV5		N/A	Not Detected	Not Detected
BVDV				
Type 1, 2 BVD, Cytopathic BVD		N/A	Not Detected	Not Detected
BPV		N/A	Not Detected	Not Detected
BRSV		N/A	Not Detected	Not Detected
BTV		N/A	Not Detected	Not Detected
Rabies		N/A	Not Detected	Not Detected
REO		N/A	Not Detected	Not Detected
CPE – Giemsa (IBR)		N/A	Not Detected	Not Detected
Hemadsorption Agents (P13)		N/A	Not Detected	Not Detected
Serum Neutralization				
BVDV Antibody Type 1		N/A	Report	Undiluted
BVDV Antibody Type 2		N/A	Report	<Undiluted
USDA Safety Testing	Inoculation	N/A	Pass	Pass
pH at RT	USP<791>	N/A	6.5-8.5	7.14
Osmolality	USP<785>	mOsm/Kg	260-350	295
Endotoxin	USP<85>	EU/mL	≤10.0	< 0.30
Hemoglobin	Spectrophotometric	mg/dL	≤30.0	14.31
Total Protein	Biuret Method	gm/dL	2.5-4.0	3.8
Electrophoretic Pattern	Cellulose Acetate	N/A	Normal	Normal
Performance Testing	MTT Assay	N/A	>75% of Control	Pass
	Cytotoxicity	N/A	None Observed	Pass
	Hybridoma Screened	N/A	>75% of Control	Pass

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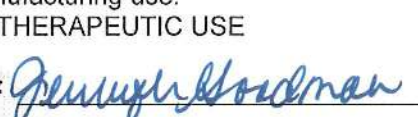
FETAL BOVINE SERUM, USDA ORIGIN

TEST	RESULTS	UNIT
BIOCHEMICAL ASSAY – PROTEINS/OTHER		
Alkaline Phosphatase	331	IU/L
AST (SGOT)	32	IU/L
ALT (SGPT)	4	IU/L
GGT	5	IU/L
Total Bilirubin	0.2	mg/dL
BUN	20	mg/dL
Cholesterol	34	mg/dL
Glucose	59	mg/dL
Uric Acid	2.0	mg/dL
Triglyceride	60	mg/dL
Creatinine	2.9	mg/dL
Bovine IgG (ELISA)	101.5	µg/mL
Total Protein	3.8	g/dL
Albumin	2.2	g/dL
Alpha 1, 2	1.3	g/dL
Beta	0.3	g/dL
Gamma	0.0	g/dL
BIOCHEMICAL ASSAY – TRACE METALS		
Calcium	14.0	mg/dL
Chloride	102	mEq/L
Phosphorus	8.8	mg/dL
Potassium	>10.0	mEq/L
Serum Iron	162	µg/dL
Magnesium	3.1	mg/dL
Sodium	138	mEq/L
BIOCHEMICAL ASSAY – HORMONES		
Testosterone	0.11	ng/mL
Estradiol	19.83	pg/mL
Insulin	7.81	µIU/mL
Cortisol	<0.2	µg/dL
Progesterone	<0.2	ng/mL
T3	63	ng/dL
T4	14.7	µg/dL

This material is sourced from government approved abattoirs from the country listed on page 1. The animals received ante and post mortem veterinary inspection and were deemed fit for human consumption. This material was imported into the United States under USDA/APHIS issued import permit.

CAUTION: This material is intended for further manufacturing use.
THIS PRODUCT IS NOT INTENDED FOR HUMAN OR THERAPEUTIC USE

Prepared By: 

Approved By: 

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Print Name: Jennifer Goodman

Date: 4/25/14

Date: 04/25/14

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