

Certificate of Analysis

Fetal Bovine Serum

Catalog Number: A1500

Lot Number: L009-6

Manufacture Date: February, 2012

Expiration Date: February, 2017

Country of Raw Material Origin: United States

Country of Final Processing: United States

Triple 0.1 µm Filtered

Store at -20°C in the dark

TEST	METHOD	UNITS	SPECIFICATIONS	RESULTS
Appearance		N/A	Clear Amber Liquid	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			
BAV3		N/A	Not Detected	Not Detected
BAV5		N/A	Not Detected	Not Detected
BVDV				
Type 1, 2 BVD, Cytopathic BVD¹		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
Hemadsorbtion Agents (PI3)		N/A	Not Detected	Not Detected
Serum Neutralization				
BVDV Antibody Type 1, 2		N/A	Report	<Undiluted
pH at RT	USP<791>	N/A	6.5-8.5	7.07
Osmolality	USP<785>	mOsm/Kg	260-350	319
Endotoxin	USP<85>	EU/mL	≤5	<0.315
Hemoglobin	Spectrophotometric	mg/dL	≤20	6.36
Total Protein	Biuret Method	gm/dL	2.5-4	3.5
Electrophoretic Pattern	Cellulose Acetate	N/A	Normal	Normal
Performance Testing	MTT Assay ²	N/A	>75% of Control	Pass
	Cytotoxicity	N/A	None Observed	Pass
	Hybridoma Screened ³	N/A	>75% of Control	Pass

TEST	RESULTS	UNIT
BIOCHEMICAL ASSAY - Proteins/Other		
Alkaline Phosphatase	203	IU/L
AST (SGOT)	71	IU/L
ALT (SGPT)	6	IU/L
GGT	5	IU/L
Total Bilirubin	0.2	mg/dL
BUN	16	mg/dL
Cholesterol	31	mg/dL
Glucose	130	mg/dL
Uric Acid	2.2	mg/dL
Triglyceride	78	mg/dL
Creatinine	2.7	mg/dL
Bovine IgG (ELISA)	174.9	µg/mL
Total Protein	3.5	g/dL
Albumin	2	g/dL
Alpha 1,2	1.2	g/dL
Beta	0.3	g/dL
Gamma	no traceable amount detected	g/dL
BIOCHEMICAL ASSAY - Trace Metals		
Calcium	14.1	mg/dL
Chloride	102	mEq/L
Phosphorus	11.2	mg/dL
Potassium	> 10	mEq/L
Serum Iron	183	µg/dL
Magnesium	3.2	mg/dL
Sodium	140	mEq/L
BIOCHEMICAL ASSAY - Hormones		
Testosterone	0.06	ng/mL
Estradiol	47.96	pg/mL
Insulin	7.18	µIU/mL
Cortisol	< 0.2	µg/dL
Progesterone	0.2	ng/mL
T3	91	ng/dL
T4	10	µg/dL

¹Type 1, 2 Cytopathic BVD will cause damage to the cells. Use only FBS found free of this biotype.

² MTT Assay - Cell Lines Used ³ Hybridoma Screening - Cell Line Used

3T3 (Mouse - Embryonic Fibroblast) Sp2/0 - Ag14 (Mouse - B cell/Myeloma)

L-929 (Mouse - Connective Tissue)

MDBK (Bovine - Kidney)

Vero (African Green Monkey - Kidney)


Origin: The material used in this product was collected in the United States. The animals received ante and post mortem veterinary inspection and were deemed fit for human consumption.

RDtech Inc. reserves the right to change test methods, specifications, and/or cell lines used in growth promotion tests without providing advance notice.

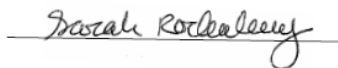
Intended Use: For Further Manufacturing Use.

THIS PRODUCT IS NOT INTENDED FOR HUMAN OR THERAPEUTIC USE.

QUALITY ASSURANCE:



QUALITY CONTROL:



DATE: May 10, 2012