

# Certificate of Analysis

SIGMA ALDRICH AUSTRALIA

Catalog Number: 12007C  
 Lot Number: 13K179R4  
 Mfg Date: 24 SEP 13  
 Exp Date: 30 SEP 18

Reference:

Fetal Bovine Serum  
 Gamma Irradiated by  
 SER-TAIN (tm) Process  
 Sourced in Australia

Test Name	Specification	Result
pH	6.8 - 8.1	7.3
Appearance	Clear, light straw-dark amber liquid	Clear, amber liquid
AVA (9CFR113.53)	Bovine Adenovirus - None detected	None detected
	Bovine Parvovirus - None detected	None detected
	Blue Tongue Virus - None detected	None detected
	Bovine Virus Diarrhea - None detected	None detected
	Cytopathic Effect - None detected	None detected
	Hemadsorption - None detected	None detected
	Infectious Bovine Rhinotracheitis - None detected	None detected
	Parainfluenza 3 - None detected	None detected
	Rabies Virus - None detected	None detected
	Reovirus - None detected	None detected
	Bovine Respiratory Syncytial Virus - None detected	None detected
	Vesicular Stomatitis Virus - None detected	None detected
Bovine IgG	(mcg/mL) - Record	98 mcg/mL
Cloning Efficiency	Tested	Tested
Electrophoretic Profile	A/G ratio - Record	1.3
	Albumin (g/dL) - Record	2.1 g/dL
	Alpha 1 Globulin (g/dL) - Record	0.7 g/dL
	Alpha 2 Globulin (g/dL) - Record	0.6 g/dL
	Beta Globulin (g/dL) - Record	0.3 g/dL
	Gamma Globulin (g/dL) - Record	0.1 g/dL
Endotoxin	<= 10.0 EU/mL	< 0.5 EU/mL
Growth Promotion/Cytotoxicity	Tested	Tested
Hemoglobin Test	<= 25 mg/dL	19 mg/dL
Irradiation Certificate	Present	Present
Irradiation Date	Date of Irradiation	22Jan15
Irradiation Dosage	25.0 - 35.0 kGy	30.3 - 31.7 kGy
Mycoplasma	None detected (Broth Culture)	None detected
	None detected (DNA Fluorochrome Stain)	None detected
Osmolality	260 - 340 mOsm/kg H2O	309 mOsm/kg H2O
Ouchterlony Test	Satisfactory (reaction to species of origin only)	Satisfactory (reaction to species of origin only)
Plating Efficiency	Tested	Tested



An ISO 9001 Certified  
 Quality Management  
 System Company

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 Lenexa, KS 66215  
 USA

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 913.469.5580  
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Safety Testing	Satisfactory	Satisfactory
Sterility	No microbial growth detected	No microbial growth detected
Total Protein	3.0 - 4.5 g/dL	3.8 g/dL
Virus Antibody Test BRSV	BRSV - Record titer	< 1:2
Virus Antibody Test BVD	BVD - Record titer	1:4
Virus Antibody Test IBR	IBR - Record titer	< 1:2
Virus Antibody Test PI3	PI3 - Record titer	< 1:2

## C of A comments

USDA safety testing results are provided if this material was imported into the United States.

## Intended Use

For Research or Further Manufacturing Uses Only.  
NOT INTENDED FOR DIRECT USE IN HUMANS OR ANIMALS.

## Origin

The material used in this product was collected in Australia. The serum was not collected from cattle born, raised, shipped through or slaughtered in countries where BSE is known to exist.

## Storage

-10 to -40 C

Signature James Bennett  
Title Quality Assurance Associate  
Date 30 JAN 15

Ref#: 12007C.06500.03 20150130 103751



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