

Certificate of Analysis

Created July 9, 2018

Product:

Foundation™ B Fetal Bovine Serum Heat Inactivated*

Triple 0.1µm sterile-filtered

Catalog #: 900-208 Lot #: A47G00J

Origin: Mexico (100%)

Manufacture Date: May 2018 Expiration Date: May 2023

Oligin: Mcxico (100%)		Expiration Date. May 2023	
TEST	METHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	Test and Report	54.1 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	Test and Report	21.7 mg/dL
Microbiological Testing			
Sterility	USP<71>		
Bacteria		Not Detected	Not Detected
Fungi		Not Detected	Not Detected
Mycoplasma	Barile, MF and Kern, J (1971)	Not Detected	Not Detected
Viral Testing	9 CFR 113.53c [113.46, 113.47]		
Cytopathic Agents		Not Detected	Not Detected
Hemadsorbing Agents		Not Detected	Not Detected
Bovine Viral Diarrhea Ab Titer			
Туре І		Test and Report	1:16
Type II		Test and Report	1:1
Extraneous Viruses (FAb)			
Bluetongue Virus		Not Detected	Not Detected
Bovine Adenovirus		Not Detected	Not Detected
Bovine Parvovirus		Not Detected	Not Detected
Bovine Viral Diarrhea (cytopathic)		Not Detected	Not Detected
Bovine Viral Diarrhea (non-cytopathic)		Test and Report	Tested
Bovine Syncytial Virus		Not Detected	Not Detected
		Not Detected	Not Detected
Reovirus		Not Detected	Not Detected
Physical Testing			
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal
Osmolality	USP<785>	260-350 m0sm/kg	270 mOsm/kg
pH @ RT	USP<791>	6.5 - 8.5	7.62
	Biological Testing Endotoxin Hemoglobin Microbiological Testing Sterility Bacteria Fungi Mycoplasma Viral Testing Cytopathic Agents Hemadsorbing Agents Bovine Viral Diarrhea Ab Titer Type I Type II Extraneous Viruses (FAb) Bluetongue Virus Bovine Adenovirus Bovine Parvovirus Bovine Viral Diarrhea (cyto Bovine Viral Diarrhea (non- Bovine Syncytial Virus Bovine Rabies Virus Reovirus Physical Testing Electrophoretic Pattern Osmolality	Biological Testing Endotoxin USP<85> Hemoglobin Fleming, AF and Woolf, AJ (1965) Microbiological Testing Sterility USP<71> Bacteria Fungi Mycoplasma Barile, MF and Kern, J (1971) Viral Testing 9 CFR 113.53c [113.46, 113.47] Cytopathic Agents Hemadsorbing Agents Bovine Viral Diarrhea Ab Titer Type I Type II Extraneous Viruses (FAb) Bluetongue Virus Bovine Adenovirus Bovine Parvovirus Bovine Viral Diarrhea (cytopathic) Bovine Viral Diarrhea (cytopathic) Bovine Rabies Virus Reovirus Physical Testing Electrophoretic Pattern Osmolality CSP<71> USP<71> USP<71> USP<71> USP<71> Diarrhea (Kern, J (1971) PO CFR 113.53c [113.46, 113.47] Cytopathic (1971) Borine Viral Diarrhea (1971) Cellulose Acetate USP<785>	Biological Testing Endotoxin Hemoglobin Fleming, AF and Woolf, AJ (1965) Fleming, AF and Woolf, AJ (1965) Microbiological Testing Sterility USP<71> Bacteria Fungi Not Detected Fungi Mycoplasma Barile, MF and Kern, J (1971) Not Detected Viral Testing 9 CFR 113.53c [113.46, 113.47] Cytopathic Agents Hemadsorbing Agents Bovine Viral Diarrhea Ab Titer Type I Type I Type I Test and Report Extraneous Viruses (FAb) Bluetongue Virus Bovine Adenovirus Bovine Parvovirus Bovine Parvovirus Bovine Viral Diarrhea (cytopathic) Bovine Viral Diarrhea (cytopathic) Bovine Syncytial Virus Bovine Syncytial Virus Bovine Rabies Virus Bovine Rabies Virus Reovirus Reovirus Reovirus Cellulose Acetate Physical Testing Electrophoretic Pattern Cellulose Acetate Normal Osmolality USP<785> 260-350 mOsm/kg



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T EST	METHODOLOGY	Specification	RESULTS
Albumin		Test and Report	2.1 g/dL
Alkaline Phosphatase		Test and Report	163 U/L
ALT (SGPT)		Test and Report	7 U/L
AST (SGOT)		Test and Report	37 U/L
GGT		<10 U/L	7 U/L
Bilirubin, Total		Test and Report	0.6 mg/dL
BUN		Test and Report	12 mg/dL
Calcium		Test and Report	2.73 mM
Chloride		Test and Report	89 mM
Cholesterol		Test and Report	22 mg/dL
Cortisol		Test and Report	161 nM
Creatinine		Test and Report	2.1 mg/dL
Estradiol		Test and Report	138 pM
Glucose		Test and Report	4.11 mM
IgG	ELISA	<0.300 mg/mL**	0.488 mg/mL
Insulin		Test and Report	27.2 pM
Iron, Serum		Test and Report	137 ug/dL
Phosphorus		Test and Report	2.26 mM
Potassium		Test and Report	8.9 mM
Progesterone		Test and Report	<0.16 nM
Protein, Total	Biuret	2.5-6.0 g/dL	3.5 g/dL
Sodium		Test and Report	126 mM
Testosterone		Test and Report	<0.03 nM
T3		Test and Report	8.73 nM
T4		Test and Report	176 nM
Triglycerides		Test and Report	31 mg/dL
Tetracycline		<4 ng/mL	Pass
Uric Acid		Test and Report	2.5 mg/dL

For Cell Culture, further Manufacturing and Research use only. Not for direct Therapeutic use.

Precipitates may develop in this product upon freezing and/or thawing; this occurrence does not impact culture performance.

**Some geographic regions may test higher than 0.300 mg/mL. If this be the case, refer to GGT results less than 10 U/L to ensure FBS purity.

07092018

CREATED BY/ DATE

VERIFIED BY/ DATE

^{*}Results shown were obtained by carefully performed methods believed to be reliable prior to heat inactivation. However, since some results may vary by methodology, it is suggested that tests for which results are particularly critical be repeated by the end user. Our fetal bovine serum meets all USDA requirements and has passed ante- and post-mortem inspection by a licensed veterinarian. It is collected in countries recognized as being free of foot-and-mouth disease and rinderpest. The origin of all fetal bovine serum is traceable by lot number, date and country of collection.