

Certificate of Analysis

Updated December 20, 2021

Product:

GemCell™ Fetal Bovine Serum

y-irradiated

Heat Inactivated*

Triple 0.1µm sterile-filtered

Catalog #: 100-201 Lot #: A52F82G

Origin: United States (100%)

Manufacture Date: Oct 2015 Expiration Date: Oct 2020

TEST	M ETHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	<10.0 EU/mL	<0.1 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	9.76 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			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 Syncytial Virus		Not Detected	Not Detected
Bovine Rabies Virus		Not Detected	Not Detected
Reovirus		Not Detected	Not Detected
Physical Testing			
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal
Osmolality	USP<785>	260-350 m0sm/kg	305 mOsm/kg
pH @ RT	USP<791>	6.5 - 8.5	7.09



Biochemical Testing

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	Expiration Date. Oct 2020		
M ETHODOLOGY	Specification	RESULTS	
		2.1 g/dL	
		191 U/L	
		3 U/L	
		27 U/L	
		0.2 mg/dL	
		13.8 mg/dL	
		2.90 mM	
		100 mM	
		31 mg/dL	
		8.277 nM	
		2.8 mg/dL	
		63.14 pM	
		5.38 mM	
ELISA		8.62 mg/dL	
		38.48 pM	
		179 ug/dL	
		3.13 mM	
		>10.0 mM	
		0.318 nM	
Biuret	2.5-6.0 g/dL	3.7 g/dL	
		139 mM	
		<0.035 nM	
		1.69 nM	
		308.88 nM	
		64 mg/dL	
		Pending ug/mL	
		1.9 mg/dL	
	ELISA	METHODOLOGY SPECIFICATION ELISA	2.1 g/dL 191 U/L 3 U/L 27 U/L 0.2 mg/dL 13.8 mg/dL 2.90 mM 100 mM 31 mg/dL 8.277 nM 2.8 mg/dL 63.14 pM 5.38 mM 5.38 mM ELISA 8.62 mg/dL 38.48 pM 179 ug/dL 3.13 mM >10.0 mM 0.318 nM >10.0 mM 0.318 nM 1.69 nM 308.88 nM 64 mg/dL Pending ug/mL

^{*}Results shown were obtained prior to heat inactivation by carefully performed methods believed to be reliable. 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 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.

Jugueline Wilson 20DE(2021