

Certificate of Analysis

Created May 13, 2019

Product:

GemCell™ Adult Bovine Serum

0.2µm sterile-filtered

Catalog #: 100-101 Lot #: C99H00K

Origin: United States (100%)

Manufacture Date: Apr 2019 Expiration Date: Apr 2024

TEST	M ETHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	Report	0.723 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	Report	11.6 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	Modified 9 CFR 113.53c		
Cytopathic Agents		Not Detected	Not Detected
Hemadsorbing Agents		Not Detected	Not Detected
Extraneous Viruses (FAb)		.31	
Bluetongue Virus		Not Detected	Not Detected
Bovine Viral Diarrhea		Tested	Not Detected
Physical Testing			
Osmolality	USP<785>	Report	366 mOsm/kg
pH @ RT	USP<791>	Report	7.92



Biochemical Testing

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Albumin		Test and Report	2.6 g/dL
Alkaline Phosphatase		Test and Report	50 U/L
ALT (SGPT)		Test and Report	13 U/L
AST (SGOT)		Test and Report	79 U/L
Bilirubin, Total		Test and Report	0.4 mg/dL
BUN		Test and Report	12 mg/dL
Calcium		Test and Report	2.1 mM
Chloride		Test and Report	92 mM
Cholesterol		Test and Report	105 mg/dL
Creatinine		Test and Report	0.7 mg/dL
Glucose		Test and Report	4.3 mM
Iron, Serum		Test and Report	96 ug/dL
Phosphorus		Test and Report	2.1 mM
Potassium		Test and Report	6.7 mM
Protein, Total	Biuret	Test and Report	7.3 g/dL
Sodium		Test and Report	135 mM
Triglycerides		Test and Report	13 mg/dL
Uric Acid		Test and Report	1.0 mg/dL

For Cell Culture, further Manufacturing and Research use only. Not for direct Therapeutic use. Results shown were obtained 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 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 bovine serum is traceable by lot number, date and country of collection. Precipitates may develop in this product upon freezing and/or thawing; this occurrence does not impact culture performance.

Created by/ date

Verified by/ dat