

## **Certificate of Analysis**

Created February 8, 2019

**Product:** 

## GemCell™ Fetal Bovine Serum

Triple 0.1µm sterile-filtered

Catalog #: 100-500 Lot #: A71G00K

Origin: United States (100%)

Manufacture Date: Jan 2019 Expiration Date: Jan 2024

TEST	METHODOLOGY	SPECIFICATION	RESULTS	
Biological Testing				
Endotoxin	USP<85>	<10.0 EU/mL	<0.500 EU/mL	
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	12.4 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	Pending	
Viral Testing	9 CFR 113.53c [113.46, 113.47]			
Cytopathic Agents		Not Detected	Pending	
Hemadsorbing Agents		Not Detected	Pending	
Bovine Viral Diarrhea Ab Titer				
Туре І	9	Test and Report	Pending	
Type II		Test and Report	Pending	
Extraneous Viruses (FAb)				
Bluetongue Virus		Not Detected	Pending	
Bovine Adenovirus		Not Detected	Pending	
Bovine Parvovirus		Not Detected	Pending	
Bovine Viral Diarrhea (cytopathic)		Not Detected	Pending	
Bovine Viral Diarrhea (non-cytopathic)		Test and Report	Pending	
Bovine Syncytial Virus		Not Detected	Pending	
Bovine Rabies Virus		Not Detected	Pending	
Reovirus		Not Detected	Pending	
Physical Testing				
Electrophoretic Pattern	Cellulose Acetate	Normal	Normal	
Osmolality	USP<785>	260-350 m0sm/kg	303 m0sm/kg	
pH @ RT	USP<791>	6.5 - 8.5	7.15	



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1	<b>T</b> EST	<b>M</b> ETHODOLOGY	SPECIFICATION	RESULTS	
	Albumin		Test and Report	2.1	g/dL
	Alkaline Phosphatase		Test and Report	207	U/L
	ALT (SGPT)		Test and Report	6	U/L
	AST (SGOT)		Test and Report	49	U/L
	GGT		<10 U/L	3	U/L
	Bilirubin, Total		Test and Report	0.3	mg/dL
	BUN		Test and Report	13	mg/dL
	Calcium		Test and Report	3.2	mM
	Chloride		Test and Report	96	mM
	Cholesterol		Test and Report	28	mg/dL
	Cortisol		Test and Report	9.52	nM
	Creatinine		Test and Report	2.2	mg/dL
	Estradiol		Test and Report	171	pM
	Glucose		Test and Report	4.4	mM
	lgG	ELISA	<0.300 mg/mL*	0.106	mg/mL
	Insulin		Test and Report	63.8	pM
	Iron, Serum		Test and Report	173	ug/dL
	Phosphorus		Test and Report	2.9	mM
	Potassium		Test and Report	>10.0	mM
	Progesterone		Test and Report	<0.19	nM
	Protein, Total	Biuret	2.5-6.0 g/dL	3.3	g/dL
	Sodium		Test and Report	134	mM
	Testosterone		Test and Report	<0.03	nM
	T3		Test and Report	1.56	nM
	T4		Test and Report	147	nM
	Triglycerides		Test and Report	60	mg/dL
	Tetracycline		<4 ng/mL	Pass	
	Uric Acid		Test and Report	1.9	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 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.

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.

CREATED BY/ DATE

VERIFIED BY/ DATE