



Product:

GemCell™ Fetal Bovine Serum
γ-irradiated
Triple 0.1µm sterile-filtered

Catalog #: 100-201

Lot #: A04H02K

Origin: United States (100%)

Manufacture Date: Jan 2018

Expiration Date: Jan 2023

TEST	METHODOLOGY	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	16.46 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		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)		Tested	Tested
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 mOsm/kg	301 mOsm/kg
pH @ RT	USP<791>	6.5 - 8.5	7.22



GEMINI
BIO-PRODUCTS

Biochemical Testing

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Albumin			1.9 g/dL
Alkaline Phosphatase			210 U/L
ALT (SGPT)			9 U/L
AST (SGOT)			82 U/L
GGT		<10 U/L	4 U/L
Bilirubin, Total			0.3 mg/dL
BUN			14 mg/dL
Calcium			3.25 mM
Chloride			96 mM
Cholesterol			30 mg/dL
Cortisol			<5.5 nM
Creatinine			2.4 mg/dL
Estrodiol			154 pM
Glucose			6.05 mM
IgG	ELISA	<0.300 mg/mL*	0.119 mg/dL
Insulin			48.8 pM
Iron, Serum			187 ug/dL
Phosphorus			3.33 mM
Potassium			>10.0 mM
Progesterone			<0.3 nM
Protein, Total	Biuret	2.5-6.0 g/dL	3.4 g/dL
Sodium			134 mM
Testosterone			<0.03 nM
T3			1.97 nM
T4			116 nM
Triglycerides			70 mg/dL
Tetracycline			Pass
Uric Acid			2.4 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.

[Signature] 19 Jul 2019

CREATED BY/ DATE

[Signature] 19 Jul 2019

VERIFIED BY/ DATE