

Certificate of Analysis

Created August 5, 2019

Product:

BenchMark™ Fetal Bovine Serum

Triple 0.1µm sterile-filtered

Catalog #: 100-106 Lot #: A98G00K

Origin: Mexico (100%)

Manufacture Date: Jun 2019 Expiration Date: Jun 2024

TEST	M ETHODOLOGY	SPECIFICATION	RESULTS			
Biological Testing						
Endotoxin	USP<85>	<10.0 Ell/mil	40 E00 Ell/mil			
Hemoglobin		<10.0 EU/mL	<0.500 EU/mL			
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	10.3 mg/dL			
Microbiological Testing	e I					
Sterility	USP<71>	1.				
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	1:4			
Type II		Test and Report	1:4			
Extraneous Viruses (FAb)						
Bluetongue Virus		Not Detected	Not Detected			
Bovine Adenovirus		Not Detected	Not Detected			
Bovine Parvovirus		Not Detected	Not Detected			
Bovine Viral Diarrhea (cyt	opathic)	Not Detected	Not Detected			
Bovine Viral Diarrhea (noi	n-cytopathic)	Test and Report	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 m0sm/kg	314 mOsm/kg			
pH @ RT	USP<791>	6.5 – 8.5	7.24			



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	TEST		SPECIFICATION		RESULTS		
	Albumin		Test and Report		2.3	g/dL	
	Alkaline Phosphatase		Test and Report		212	U/L	
	ALT (SGPT)		Test and Report		5	U/L	
	AST (SGOT)		Test and Report		31	U/L	
	GGT		<10 U/L		5	U/L	
	Bilirubin, Total		Test and Report		0.3	mg/dL	
	BUN		Test and Report		16	mg/dL	
	Calcium		Test and Report		3.23	mM	
	Chloride		Test and Report		102	mM	
	Cholesterol	190	Test and Report		28	mg/dL	
	Cortisol		Test and Report		9.05	nM	
ž.	Creatinine		Test and Report		2.7	mg/dL	
	Estradiol		Test and Report		138	pM	
	Glucose		Test and Report		4.4	mM	
	IgG	ELISA	<0.300 mg/mL*		0.320	mg/mL	
	Insulin		Test and Report		38.1	pM	
	Iron, Serum		Test and Report		165	u g /dL	
	Phosphorus		Test and Report		3.0	mM	127
	Potassium		Test and Report		>10.0	mM	
	Progesterone		Test and Report		<0.19	nM	
	Protein, Total	Biuret	2.5-6.0 g/dL		3.5	g/dL	
	Sodium		Test and Report		134	mM	
	Testosterone		Test and Report		<0.03	nM	
	T3		Test and Report		1.59	nM	
	T4		Test and Report		160	nM	
	Triglycerides		Test and Report		66	mg/dL	
	Tetracycline		<4 ng/mL		Pass	_	
	Uric Acid		Test and Report		2.2	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