

CERTIFICATE OF ANALYSIS
Fetal Bovine Serum Premium – 0.1µm Triple Filtered Sterile, USDA Origin

Batch No.	239P19	Expiry Date	August 2024
Catalog No.	FBS002	Storage	-10°C to -20°C
Country of Raw Material Origin	Panama	Appearance	Clear straw to amber liquid
Country of Final Processing	United States	Filtration	Triple 0.1µm filtered
Date of Manufacture	August 2019	Batch size	984 Liters

CHEMICAL PARAMETERES

Test	Methods	Units	Specifications	Results
Albumin	Chemistry Analyzer	g/L	As Reported	17.6
Alpha Globulin	Chemistry Analyzer	g/L	As Reported	16.7
Beta Globulin	Chemistry Analyzer	g/L	As Reported	1.8
Gamma Globulin	Chemistry Analyzer	g/L	As Reported	0.2
Total Protein	Chemistry Analyzer	g/dL	As Reported	3.62
Alkaline Phosphatase	Chemistry Analyzer	U/L	As Reported	368
Glutamic Pyruvic Transaminase (SGPT) (ALT)	Chemistry Analyzer	U/L	As Reported	8
Gamma-Glutamyl Transpeptidase (GGT)	Chemistry Analyzer	U/L	As Reported	7
AST (SGOT)	Chemistry Analyzer	U/L	As Reported	23
Bilirubin	Chemistry Analyzer	mg/dL	As Reported	0.12
Calcium	Chemistry Analyzer	mg/dL	As Reported	14.2
Chloride	Chemistry Analyzer	mEq/L	As Reported	104
Cholesterol	Chemistry Analyzer	mg/dL	As Reported	34
Creatinine	Chemistry Analyzer	mg/dL	As Reported	2.9
Glucose	Chemistry Analyzer	mg/dL	As Reported	53
Hemoglobin	USP <90>	mg/dL	≤ 20	11.50
IgG	ELISA	µg/mL	As Reported	121.2
Iron	Chemistry Analyzer	µg/dL	As Reported	148
LDH	Chemistry Analyzer	U/L	As Reported	568
Osmolality	Osmometer	mOsm/kg	260-340	295
pH	pH Meter		6.50-8.50	7.05
Phosphorus	Chemistry Analyzer	mg/dL	As Reported	8.7
Potassium	Chemistry Analyzer	mEq/L	As Reported	11.0
Sodium	Chemistry Analyzer	mEq/L	As Reported	139
Triglyceride	Chemistry Analyzer	mg/dL	As Reported	58
Urea	Chemistry Analyzer	mg/dL	As Reported	39
Uric Acid	Chemistry Analyzer	mg/dL	As Reported	1.6

VIRAL TESTING

Test	Methods	Specifications	Results
Blue Tongue	9CFR 113.53	Not Detected	Not Detected
Bovine Adeno 1	9CFR 113.53	Not Detected	Not Detected
Bovine Adeno 5	9CFR 113.53	Not Detected	Not Detected
BPV	9CFR 113.53	Not Detected	Not Detected
BRSV	9CFR 113.53	Not Detected	Not Detected
BVD Cytopathic	9CFR 113.53	Not Detected	Not Detected
BVD Non-Cytopathic	9CFR 113.53	Not Detected	Not Detected
Cytopathic (IBR)	9CFR 113.53	Not Detected	Not Detected
Hemadsorbing (PI3)	9CFR 113.53	Not Detected	Not Detected
Rabies	9CFR 113.53	Not Detected	Not Detected
REO Virus	9CFR 113.53	Not Detected	Not Detected

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MICROBIOLOGICAL PARAMETERS

Test	Methods	Units	Specifications	Results
Endotoxin	LAL	EU/mL	≤10	≤10
Mycoplasma	9CFR 113.28		Not Detected	Not Detected
Sterility	9CFR 113.26		No Growth	No Growth

ANTIBIOTIC

Test	Units	Specifications	Results
Tetracycline		Not Detected	Not Detected

BIOLOGICAL PERFORMANCE

Test	Specifications	Results
Cell Line: L929- 3rd day:	As Reported	107%
Cell Line: L929- 6th day:	As Reported	90%
Cell Line: SP2- 3rd day:	As Reported	95%
Cell Line: SP2- 6th day:	As Reported	96%
Cell Line: HELA - 3rd day:	As Reported	88%
Cell Line: HELA - 6th day:	As Reported	113%
Cell Line: MRC5- 3rd day:	As Reported	81%
Cell Line: MRC5- 6th day:	As Reported	105%
PLATING EFFICIENCY - Cells implanted:	500	500
PLATING EFFICIENCY- Number of colonies:	As Reported	319
PLATING EFFICIENCY- %PE absolute:	As Reported	64%
PLATING EFFICIENCY- %PE relative:	As Reported	93%
CLONING EFFICIENCY - Cells implanted per well:	1	1
CLONING EFFICIENCY - Number of clones:	As Reported	37
CLONING EFFICIENCY - %CE absolute:	As Reported	38%
CLONING EFFICIENCY - %CE relative:	As Reported	94%