

Certificate of Analysis

Fetal Bovine Serum

Catalog Number :	FSP500/100/050/025/010	Grade :	Prime
Lot Number :	012C-0413A	Storage :	-10°C or lower
Manufactured :	Apr.13, 2023	Origin :	Uruguay
Expiry Date :	Apr.12, 2028	Filtration :	Triple 0.1µm filtered

Quality Profile

TEST	SPECIFICATION	RESULT	METHODS
Appearance	Clear straw to amber liquid	Normal	Visual Control
pH	7.0-8.0	7.47	Potentiometry
Total Protein	30-45 g/L	35 g/L	Biuret method
Hemoglobin	≤200 mg/L	74 mg/L	Spectrophotometric method
Osmolality	280-360 mOsm/kg	305 mOsm/kg	Freezing point method
Endotoxin	≤10 EU/mL	< 0.125 EU/mL	Gel-clot method: limit test
IgG	≤500 mg/L	292 mg/L	BLI

Microbiology Test

TEST	SPECIFICATION	RESULT	METHODS
Sterility Testing	Negative	Negative	Membrane Filtration
Mycoplasma	Not detected	Not detected	Culture
Coliphage	Not detected	Not detected	Plaque testing
BVDV	Not detected	Not detected	Virus Isolation
IBR	Not detected	Not detected	qPCR
PI3	Not detected	Not detected	RT-qPCR
Bluetongue	Not detected	Not detected	RT-qPCR
BPV	Not detected	Not detected	qPCR
BAV-3	Not detected	Not detected	qPCR
Rabies virus	Not detected	Not detected	RT-qPCR
BRSV	Not detected	Not detected	RT-qPCR
REO-3	Not detected	Not detected	RT-qPCR

Certificate of Analysis

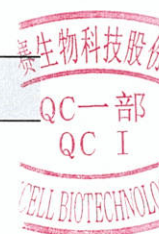
Fetal Bovine Serum

Protein Electrophoresis

TEST	SPECIFICATION	RESULT	METHODS
Albumin	For Information	50.7%	Capillary electrophoresis
Alpha Globulins	For Information	43.6%	Capillary electrophoresis
Beta Globulins	For Information	5.3%	Capillary electrophoresis
Gamma Globulins	For Information	0.4%	Capillary electrophoresis

Biochemical Parameters

TEST	RESULT	METHODS
ALAT(SGPT)	6 U/L	UV Kinetic
Alkaline Phosphatase	419 U/L	Colorimetry Kinetic
Bilirubin (Total)	< 3.0 $\mu\text{mol/L}$	DPD / caffeine colorimetry
Calcium	3.21 mmol/L	Arsenazo
Chloride	102.1 mmol/L	Indirect potentiometry
Cholesterol	0.89 mmol/L	Cholesterolase Trinder colorimetry
Creatinine	271 $\mu\text{mol/L}$	Colorimetry Kinetic
Gamma Glutamyl Transpeptidase (GGT)	8 U/L	Colorimetry Kinetic
Glucose	1.86 mmol/L	Hexokinase UV
High Density Lipoproteins (HDL)	0.25 mmol/L	Polyanion polymer/detergent,PPD
Low Density Lipoproteins (LDL)	0.50 mmol/L	Polyanion polymer/detergent,PPD
Lactic Dehydrogenase (LDH)	704 U/L	UV Kinetic
Phosphorous (Inorganic)	2.63 mmol/L	Phosphomolybdate colorimetry
Potassium	16 mmol/L	Indirect potentiometry
AST	32 U/L	Colorimetry Kinetic
Sodium	137.6 mmol/L	Indirect potentiometry
Total Iron Binding Capacity	46.1 $\mu\text{mol/L}$	TPTZ colorimetry
Triglycerides (TG)	0.53 mmol/L	Glycerokinase Trinder colorimetry
Uric Acid	93 $\mu\text{mol/L}$	Uricase Trinder colorimetry



Certificate of Analysis

Fetal Bovine Serum

Biological Performance

TEST	RESULT	METHODS
SP2/0-Ag14 cell: Relative Peak Value	$1.4 \times 10^6/\text{mL}$	Internal validated method
SP2/0-Ag14 cell: Relative Doubling Time	15.7 h	Internal validated method
SP2/0-Ag14 cell: Relative Cloning Efficiency	81%	Internal validated method
SP2/0-Ag14 cell: Relative Single-Cell Proliferation Efficiency	19%	Internal validated method
CHO Cell Relative Growth Efficiency	98%	Internal validated method
293T Cell Relative Growth Efficiency	103%	Internal validated method
293T Cell(5%) Relative Growth Efficiency	103%	Internal validated method
VERO Cell Relative Growth Efficiency	80%	Internal validated method
MRC-5 Cell Relative Growth Efficiency	94%	Internal validated method
A549 Cell Relative Growth Efficiency	95%	Internal validated method

Quality Control Department:

Date:

