



# Certificate of Analysis

## Fetal Bovine Serum

Catalog Number :	FND500	Grade :	Defined
Lot Number :	11H240	Storage :	-20°C
Manufactured :	Aug. 2018	Origin :	New Zealand
Expiry Date :	Aug. 2023	Filtration :	Triple 0.1µm filtered

### Quality Profile

TEST	SPECIFICATION	RESULT	METHODS
Appearance	Normal	Clear straw to amber liquid	
pH	7.0-8.5	7.77	
Total Protein	35-50 g/L	41 g/L	BCA method
Hemoglobin	≤200 mg/L	189 mg/L	4-APP method
Osmolality	250-330 mOsm/kg	311 mOsm/kg	Freezing point method
Endotoxin	≤10 EU/mL	0.54 EU/mL	Gel-clot method: limit test

### Microbiology Test

TEST	SPECIFICATION	RESULT	METHODS
Sterility Testing	Negative	Negative	Culture
Mycoplasma	Not detected	Not detected	Culture
Bacteriophage	Not detected	Not detected	Plaque testing
Cytopathogenic Agents	Negative	Negative	CPE
Hemadsorbing Agents	Negative	Negative	HAd
BVD	Not detected	Not detected	IF
IBR	Not detected	Not detected	IF
PI3	Not detected	Not detected	IF
Bluetongue	Not detected	Not detected	IF



依科赛生物  
ExCell Bio

依科赛生物科技(太仓)有限公司  
ExCell Biotech (Taicang) Co., Ltd

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### Biochemical Parameters

TEST	RESULT	METHODS
ALAT(SGPT)	8 U/L	UV Kinetic
Alkaline Phosphatase	383 U/L	Colorimetry Kinetic
Bilirubin (Total)	2.4 µmol/L	DPD / caffeine colorimetry
Calcium	3.5 mmol/L	Arsenazo
Chloride	98.2 mmol/L	Indirect potentiometry
Cholesterol	0.81 mmol/L	Cholesterolase Trinder colorimetry
Creatinine	283 µmol/L	Colorimetry Kinetic
Gamma Glutamyl Transpeptidase (GGPT)	7 U/L	Colorimetry Kinetic
Glucose	2.34 mmol/L	Hexokinase UV
High Density Lipoproteins (HDL)	0.27 mmol/L	Polyanion polymer/detergent,PPD
Low Density Lipoproteins (LDL)	0.28 mmol/L	Polyanion polymer/detergent,PPD
Lactic Dehydrogenase (LDH)	650 U/L	UV Kinetic
Phosphorous (Inorganic)	2.79 mmol/L	Phosphomolybdate colorimetry
Potassium	10.74 mmol/L	Indirect potentiometry
AST	35 U/L	Colorimetry Kinetic
Sodium	138.6 mmol/L	Indirect potentiometry
Total Iron Binding Capacity	49 µmol/L	TPTZ colorimetry
Triglycerides (TG)	0.57 mmol/L	Glycerokinase Trinder colorimetry
Uric Acid	75 µmol/L	Uricase Trinder colorimetry

### Biological Performance

TEST	RESULT	METHODS
SP2/0-Ag14 cell: Peak Value	$1.3 \times 10^6$ /mL	Internal validated method
SP2/0-Ag14 cell: Doubling Time	15.5 h	Internal validated method
Relative Cloning Efficiency	85%	Internal validated method
Relative Single-Cell Proliferation Efficiency	15%	Internal validated method
Relative Livability:	95%	Internal validated method



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TEST	RESULT	METHODS
293T Cell Growth Efficiency	97%	Internal validated method
CHO Cell Growth Efficiency	98%	Internal validated method
L929 Cell Growth Efficiency	95%	Internal validated method
VERO Cell Growth Efficiency	95%	Internal validated method
MRC-5 Cell Growth Efficiency	78%	Internal validated method
A549 Cell Plating Efficiency	80%	Internal validated method

Quality Control Department: *Seena*

Date: *Dec 2018*

