

Certificate of Analysis

Fetal Bovine Serum

Australian Origin

Cat No.:	A115-100 / A115-500	Lot No.:	A24080901
Production Date:	31 st August, 2023	Expiry Date:	30 th August, 2028
Storage:	-15 °C or below	Page:	1 / 2

Physical and Chemical Analysis

	Specifications	Results
Appearance ^[1]	Clear amber liquid	Clear amber liquid
pH ^[2]	6.7 – 8.0	7.56
Osmolality ^[3]	260 -340 mOsmol/kg	305 mOsmol/kg
Haemoglobin ^[4]	< 25 mg/100mL	9.68 mg/100mL
Total protein ^[5]	30 – 50 g/L	33.09 g/L
Albumin ^[6]	14 – 34 g/L	24.8 g/L
Globulin ^[6]	4 – 24 g/L	11.5 g/L
IgG ^[7]	< 350 µg/mL	204 µg/mL
Endotoxin ^[8]	< 30 EU/ml	< 1 EU/ml

Sterility Testing

	Specifications	Results
Aerobic Bacteria ^[9]	not detected	not detected
Anaerobic Bacteria ^[9]	not detected	not detected
Fungi (Yeast and Mould) ^[9]	not detected	not detected
Mycoplasma ^[10]	not detected	not detected

Virus Testing

	Specifications	Results
Bluetongue virus ^[11]	not detected	not detected
BVD ^[11]	not detected	not detected
IBR ^[11]	not detected	not detected
PI-3 ^[11]	not detected	not detected
Bovine Adenovirus ^[11]	not detected	not detected
Bovine Parvovirus ^[11]	not detected	not detected
Cytopathic Effect ^[11]	not detected	not detected
Hemadsorption ^[11]	not detected	not detected
Reovirus ^[11]	not detected	not detected
Bovine Respiratory Syncytial Virus ^[11]	not detected	not detected
Vesicular Stomatitis Virus ^[11]	not detected	not detected

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Cell-Culture Tests

		Specifications	Results
Growth Rate ^[12]		> 80%	93%
Cloning Efficiency (SP2/0-Ag14)		> 70%	87.2%
Cell Growth(SP2/0-Ag14)	Seed	Day 3	Day 6 [cells per ml]
Lot No.A24080901	2.00 x 10 ⁵	1.00 x 10 ⁶	1.00 x 10 ⁷
Control Serum	2.00 x 10 ⁵	1.00 x 10 ⁶	1.00 x 10 ⁷
Cell Growth(293T)	Seed	Day 3	Day 6 [cells per ml]
Lot No.A24080901	1.50 x 10 ⁵	1.50 x 10 ⁶	1.50 x 10 ⁷
Control Serum	1.50 x 10 ⁵	1.50 x 10 ⁶	1.50 x 10 ⁷

<https://nobimpex.de/en/>

References

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| [1] Visual | [8] Kinetic – Turbidimetric |
| [2] pH meter – digital | [9] USP<71> |
| [3] Freezing Point Depression | [10] Direct Culture |
| [4] Spectrophotometer | [11] 9CFR 113.53 |
| [5] Biuret | [12] Diploid Cell Line |
| [6] Gel Electrophoresis | |
| [7] ELISA | |

These signatures indicate the material mentioned above has met specifications and has been reviewed by the quality unit.

Signature: 
Position: QC inspector
Issue date: 20th October, 2023

Signature: 
Position: Approver
Issue date: 20th October, 2023