

Certificate of Analysis

Fetal Bovine Serum

| | | | |
|------------------|--------------|--------------|-----------------------|
| Catalog Number : | FSP500 | Grade : | Prime |
| Lot Number : | 012C-0207A | Storage : | -10°C or lower |
| Manufactured : | Feb.07, 2023 | Origin : | Uruguay |
| Expiry Date : | Feb.06, 2028 | Filtration : | Triple 0.1µm filtered |

Quality Profile

| TEST | SPECIFICATION | RESULT | METHODS |
|---------------|-----------------|-----------------------------|-----------------------------|
| Appearance | Normal | Clear straw to amber liquid | Visual Control |
| pH | 7.0-8.0 | 7.59 | Potentiometry |
| Total Protein | 30-45 g/L | 38 g/L | Biuret method |
| Hemoglobin | ≤200 mg/L | 76 mg/L | Spectrophotometric method |
| Osmolality | 280-360 mOsm/kg | 307 mOsm/kg | Freezing point method |
| Endotoxin | ≤10 EU/mL | 0.8-1.6 EU/mL | Gel-clot method: limit test |

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 |
| Cytopathogenic Agents | Negative | Negative | CPE |
| BVDV | Not detected | Not detected | IF |
| 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 |

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| TEST | SPECIFICATION | RESULT | METHODS |
|--------------|---------------|--------------|---------|
| Rabies virus | Not detected | Not detected | RT-qPCR |
| BRSV | Not detected | Not detected | RT-qPCR |
| REO-3 | Not detected | Not detected | RT-qPCR |

Biochemical Parameters

| TEST | RESULT | METHODS |
|--------------------------------------|-------------------------|-----------------------------------|
| ALAT(SGPT) | 6 U/L | UV Kinetic |
| Alkaline Phosphatase | 373 U/L | Colorimetry Kinetic |
| Bilirubin (Total) | < 3.0 $\mu\text{mol/L}$ | DPD / caffeine colorimetry |
| Calcium | 3.18 mmol/L | Arsenazo |
| Chloride | 99.7 mmol/L | Indirect potentiometry |
| Cholesterol | 0.90 mmol/L | Cholesterase Trinder colorimetry |
| Creatinine | 263 $\mu\text{mol/L}$ | Colorimetry Kinetic |
| Gamma Glutamyl Transpeptidase (GGPT) | 7 U/L | Colorimetry Kinetic |
| Glucose | 3.12 mmol/L | Hexokinase UV |
| High Density Lipoproteins (HDL) | 0.26 mmol/L | Polyanion polymer/detergent,PPD |
| Low Density Lipoproteins (LDL) | 0.58 mmol/L | Polyanion polymer/detergent,PPD |
| Lactic Dehydrogenase (LDH) | 656 U/L | UV Kinetic |
| Phosphorous (Inorganic) | 2.84 mmol/L | Phosphomolybdate colorimetry |
| Potassium | 13 mmol/L | Indirect potentiometry |
| AST | 29 U/L | Colorimetry Kinetic |
| Sodium | 136.2 mmol/L | Indirect potentiometry |
| Total Iron Binding Capacity | 47.4 $\mu\text{mol/L}$ | TPTZ colorimetry |
| Triglycerides (TG) | 0.68 mmol/L | Glycerokinase Trinder colorimetry |
| Uric Acid | 107 $\mu\text{mol/L}$ | Uricase Trinder colorimetry |

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Biological Performance

| TEST | RESULT | METHODS |
|--|---------------------------|---------------------------|
| SP2/0-Ag14 cell: Relative Peak Value | 1.4 × 10 ⁶ /mL | Internal validated method |
| SP2/0-Ag14 cell: Relative Doubling Time | 15.4 h | Internal validated method |
| SP2/0-Ag14 cell: Relative Cloning Efficiency | 81% | Internal validated method |
| SP2/0-Ag14 cell: Relative Single-Cell Proliferation Efficiency | 16% | Internal validated method |
| CHO Cell Relative Growth Efficiency | 93% | Internal validated method |
| 293T Cell Relative Growth Efficiency | 102% | Internal validated method |
| 293T Cell(5%) Relative Growth Efficiency | 102% | Internal validated method |
| VERO Cell Relative Growth Efficiency | 89% | Internal validated method |
| MRC-5 Cell Relative Growth Efficiency | 100% | Internal validated method |
| A549 Cell Relative Growth Efficiency | 95% | Internal validated method |

Quality Control Department: *Carrie*

Date: *Dec. 15, 2023*

