



CERTIFICATE OF ANALYSIS
GemCell™ Bovine Calf Serum
(Catalog Number 100-506)

Lot Number: C423021

Date of Manufacture: Nov2021

Origin: United States

Product Expiry: Nov2026

For Cell culture, Further Manufacturing or Research
use Only. Not for Direct Therapeutic Use.

Storage Temperature: ≤ -10°C

Product description: *GemCell™ Bovine Calf Serum is sterile-filtered through a 0.2 µm filter prior to freezing.*

| Test | Methodology | Specification | Analysis |
|--------------------------------|----------------------------|-----------------|--------------------------------|
| Biological Testing | | | |
| Endotoxin | LAL | Test and Report | 0.602 EU/mL |
| Microbiological Testing | | | |
| Sterility | 9CFR 113.26 | | |
| Bacteria | | No Growth | No Growth |
| Fungi | | No Growth | No Growth |
| Mycoplasma | PCR | Not Detected | Not Detected |
| Viral Testing | 9CFR 113.53c,113.46,113.47 | | |
| Bovine Viral Diarrhea | | Not Detected | Not Detected |
| IBR | | Not Detected | Not Detected |
| Para Influenza 3 Virus (PI3) | | Not Detected | Not Detected |
| BTV | | Not Detected | Not Detected |
| Physical Testing | | | |
| Osmolality | Osmometer | Test and Report | 300.0 mOsm/kg H ₂ O |
| pH | pH Meter | Test and Report | 7.1 |
| Biochemistry | | | |
| Albumin | Chemistry Analyzer | Test and Report | 3.0 g/dL |
| Alkaline Phosphatase | Chemistry Analyzer | Test and Report | 69.0 IU/L |
| ALT (SGPT) | Chemistry Analyzer | Test and Report | 26.0 IU/L |
| AST (SGOT) | Chemistry Analyzer | Test and Report | 118.0 IU/L |
| Bilirubin, Total | Chemistry Analyzer | Test and Report | 0.3 mg/dL |
| BUN | Chemistry Analyzer | Test and Report | 11.0 mg/dL |
| Calcium | Chemistry Analyzer | Test and Report | 9.6 mg/dL |
| Chloride | Chemistry Analyzer | Test and Report | 96.0 mEq/L |
| Cholesterol | Chemistry Analyzer | Test and Report | 72.0 mg/dL |
| Creatinine | Chemistry Analyzer | Test and Report | 1.2 mg/dL |
| Glucose | Chemistry Analyzer | Test and Report | 62.0 mg/dL |



| Test | Methodology | Specification | Analysis |
|----------------|--------------------|-----------------|-------------|
| Hemoglobin | USP<90> | Test and Report | 28.4 mg/dL |
| Iron, Serum | Chemistry Analyzer | Test and Report | 105.0 µg/dL |
| Phosphorus | Chemistry Analyzer | Test and Report | 7.2 mg/dL |
| Potassium | Chemistry Analyzer | Test and Report | 6.4 mEq/L |
| Protein, Total | Chemistry Analyzer | Test and Report | 8.0 g/dL |
| Sodium | Chemistry Analyzer | Test and Report | 141.0 mEq/L |
| Triglycerides | Chemistry Analyzer | Test and Report | 15.0 mg/dL |
| Uric Acid | Chemistry Analyzer | Test and Report | 0.9 mg/dL |

Our bovine serum meets all USDA requirements and has passed ante- and post-mortem inspection by a licensed veterinarian. It is collected in countries recognized as being free of foot-and-mouth disease and rinderpest. The origin of all bovine serum is traceable by lot number, date and country of collection. Precipitates may develop in this product upon freezing and/or thawing; this occurrence does not impact culture performance.

The testing that has been performed as part of this lot release has been reviewed by Quality Assurance personnel and has confirmed that the testing meets the specifications presented on this Certificate of Analysis.

Berkeley Leachman

Name

QC Associate I

Title

12 JUL 2023

Date