



Product: **BenchMark™ Fetal Bovine Serum**
Triple 0.1µm sterile-filtered

Catalog #: 100-106

Lot #: A88B00A

Origin: Costa Rica (97%) Mexico (3%)

Manufacture Date: Feb 2010

Expiration Date: Feb 2015

| TEST | METHODOLOGY | SPECIFICATION | RESULTS |
|----------------------------------|--------------------------------|-----------------|---------------|
| Biological Testing | | | |
| Culture Performance, Presumptive | | Pass | Pass |
| Endotoxin | USP<85> | <10.0 EU/mL | <0.500 EU/mL |
| Microbiological Testing | | | |
| Sterility | USP<71> | | |
| Bacteria | | Not Detected | Not Detected |
| Fungi | | Not Detected | Not Detected |
| Mycoplasma | Barile, MF and Kern, J (1971) | Not Detected | Not Detected |
| Viral Testing | | | |
| | 9 CFR 113.53c [113.46, 113.47] | | |
| Cytopathic Agents | | Not Detected | Not Detected |
| Hemadsorbing Agents | | Not Detected | Not Detected |
| Bovine Viral Diarrhea Ab Titer | | | 1:1 |
| Extraneous Viruses (FAB) | | | |
| Bluetongue Virus | | Tested | Tested |
| Bovine Adenovirus | | Tested | Tested |
| Bovine Parvovirus | | Tested | Tested |
| Bovine Viral Diarrhea | | Tested | Tested |
| Bovine Syncytial Virus | | Tested | Tested |
| Bovine Rabies Virus | | Tested | Tested |
| Reovirus | | Tested | Tested |
| Physical Testing | | | |
| Electrophoretic Pattern | Cellulose Acetate | Normal | Normal |
| Osmolality | USP<785> | 260-350 mOsm/kg | 301.0 mOsm/kg |
| pH @ RT | USP<791> | 6.5 – 8.5 | 7.41 |



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| TEST | METHODOLOGY | SPECIFICATION | RESULTS | NEW RESULTS | UNITS |
|----------------------|-------------|-----------------|---------|-------------|-------|
| Albumin | | Test and Report | 2.3 | 2.4 | g/dL |
| Alkaline Phosphatase | | Test and Report | 318.0 | 238 | U/L |
| ALT (SGPT) | | Test and Report | 6.0 | 3 | U/L |
| AST (SGOT) | | Test and Report | 60.0 | 34 | U/L |
| Bilirubin, Total | | Test and Report | 0.2 | 0.2 | mg/dL |
| BUN | | Test and Report | 20.0 | 19 | mg/dL |
| Calcium | | Test and Report | 3.6 | 2.7 | mM |
| Chloride | | Test and Report | 110.0 | 101 | mM |
| Cholesterol | | Test and Report | 36.0 | 32 | mg/dL |
| Cortisol | | Test and Report | 7.670 | | nM |
| Creatinine | | Test and Report | 3.0 | 2.7 | mg/dL |
| Estradiol | | Test and Report | 58.88 | | pM |
| Glucose | | Test and Report | 2.6 | 2.2 | mM |
| Hemoglobin | Fleming | <20.0 mg/dL | 6.5 | | mg/dL |
| IgG | ELISA | <0.300 mg/mL* | 0.079 | | mg/mL |
| Insulin | | Test and Report | 55.98 | | pM |
| Iron, Serum | | Test and Report | 170 | 153 | ug/dL |
| Phosphorus | | Test and Report | 2.9 | 2.6 | mM |
| Potassium | | Test and Report | 11.2 | 9.4 | mM |
| Progesterone | | Test and Report | 0.19 | | nM |
| Protein, Total | Biuret | 2.5-6.0 g/dL | 3.9 | 3.5 | g/dL |
| Sodium | | Test and Report | 149.0 | 139 | mM |
| Testosterone | | Test and Report | 0.45 | | nM |
| T3 | | Test and Report | 0.76 | | nM |
| T4 | | Test and Report | 173.49 | | nM |
| Triglycerides | | Test and Report | 52.0 | 50 | mg/dL |
| Tetracycline | | <4 ng/mL | <0.5 | | µg/mL |
| Uric Acid | | Test and Report | 1.3 | 1.2 | mg/dL |

For Cell Culture, further Manufacturing and Research use only. Not for direct Therapeutic use.

Results shown were obtained by carefully performed methods believed to be reliable. However, since some results may vary by methodology, it is suggested that tests for which results are particularly critical be repeated by the end user.

Our fetal 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 fetal 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.

**Some geographic regions may test higher than 0.300 mg/mL. If this be the case, refer to GGT results less than 10 U/L to ensure FBS purity.*

[Signature]

CREATED BY/ DATE

[Signature] 18DEC2019

VERIFIED BY/ DATE