



Certificate of Analysis

Ultra Low IgG Fetal Bovine Serum
Origin: United States
Performance, Mycoplasma,
Virus and Endotoxin tested
BVD antibody tested

Catalog Number: 16250
Lot Number: 1914721

Storage Temperature: -5 to -20C

Expiration Date: 2022-08

For in vitro diagnostic use.

Sterile filtered (triple 0.1 um)

| TEST | SPECIFICATION | RESULT | UNITS |
|--|----------------|----------|---------|
| ¹ BVD Neutralization Assay | Check & Record | Negative | |
| ² BVD Neutralization Titer | Check & Record | 1:4 | Ratio |
| ³ Determination of Bovine IgG Elisa Assay | >=0 to <=4.9 | <0.1 | ug/mL |
| ⁴ Electrophoretic Pattern | Normal | Normal | |
| ⁵ Endotoxin Testing | >=0 to <=50 | <0.10 | EU/mL |
| ⁶ Hemoglobin | >=0 to <=25 | 16.7 | mg% |
| ⁷ Mycoplasma, Supplemental (H-Stain) | Negative | Negative | |
| ⁸ Mycoplasma Testing | Negative | Negative | |
| ⁹ Osmolality | >=300 to <=330 | 309 | mOsm/kg |
| ¹⁰ Performance Testing: Cloning Assay | Check & Record | 102 | % |
| ¹¹ Performance Testing: Growth Assay | Check & Record | 97 | % |
| ¹² Performance Testing: Plating Assay | Check & Record | 87 | % |
| ¹³ pH | >=6.9 to <=7.8 | 7.2 | |
| ¹⁴ Sterility Testing | Negative | Negative | |
| ¹⁵ Total Protein | Check & Record | 3.5 | g/dL |
| ¹⁶ VT - Bluetongue Virus FA | Negative | Negative | |
| ¹⁷ VT - Bovine Adenovirus FA | Negative | Negative | |
| ¹⁸ VT - Bovine Parvovirus FA | Negative | Negative | |
| ¹⁹ VT- BRSV Fluorescent Antibody | Negative | Negative | |

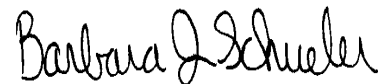
| | | |
|--|----------|----------|
| ²⁰ VT - BVDV Fluorescent Antibody | Tested | Tested |
| ²¹ VT - Cytopathogenic Agents | Negative | Negative |
| ²² VT - Hemadsorbing Agents | Negative | Negative |
| ²³ VT - Rabies Virus FA | Negative | Negative |
| ²⁴ VT - Reovirus FA | Negative | Negative |

Read SDS

GIBCO brand, Life Technologies cell culture liquid products are prepared by an aseptic process for which each step has been validated to ensure that all products meet the industry standard sterility assurance level of 10^{-3} ; i.e. product that demonstrates a contamination level of no more than 1 of 1,000 units during the manufacturing process. The highest level of sterility assurance (equal to or greater than 10^{-6}) cannot be achieved without terminal sterilization which is harmful to the performance of cell culture products.

We certify that all Fetal Bovine Sera meets USDA requirements for abattoir-sourced animals, traceability and country of origin. ABBATOIR-SOURCED ANIMALS: All fetal blood is collected from fetuses derived from healthy dams that have passed pre and post mortem certified veterinary inspection. TRACEABILITY: All Fetal Bovine Sera is traceable by date and location of collection. COUNTRY OF ORIGIN: Fetal Bovine Serum collected and processed in the United States is from USDA approved and inspected slaughter establishments. The United States is recognized by the USDA as being free of foot and mouth disease and rinderpest.

NOTICE: Since our sera are not pre-aged before filtration, turbidity or flocculent debris may develop upon thawing or storage. This condition does not adversely affect performance characteristic of the serum.



Quality Systems Department

Date: 05-Oct-2017

REFERENCES:

- 1 Life Technologies Specifications.
- 2 Life Technologies Specifications.
- 3 Life Technologies Specifications.
- 4 Protein Electrophoresis - Life Technologies Specifications
- 5 Current United States Pharmacopeia, <85> Bacterial Endotoxins Test
- 6 Fleming, A.F. and Woolf, A.J. (1965) Clin. Chem. 12, 67.
- 7 Hoechst H Stain Chen, T.R. (1977) Exp. Cell Res., 104, 255 Life Technologies Modified.
- 8 Barile, M.F. and Kern, J. (1971) P.S.E.M.B. 138, 432, Life Technologies Modified.
- 9 Life Technologies Specifications.
- 10 Life Technologies Specifications, Ref.: GIBCO Catalog. Cell Line Used: Sp2/O-Ag14 (ATCC No. CRL-1581) or P3 x 63 - Ag8.653 (ATCC No. CRL-1580). The cloning efficiency assay analyzes the ability of each FBS lot to support cloning and growth of murine myeloma cells and derived hybridomas.
- 11 Life Technologies Specifications, Ref.: Cell Line Used: Human Diploid Normal Lung Fibroblast. GIBCO growth promotion assay measures the ability of each FBS lot to support proliferation of fastidious human diploid fibroblasts through multiple subcultures.
- 12 Life Technologies Specifications, Ref.: GIBCO Catalog. Cell Line Used: Human Lung Carcinoma (A549), ATCC No. CCL-185. Analysis of cellular attachment and proliferation of a human transformed cell line.
- 13 Life Technologies Specifications.
- 14 Current edition of USP.
- 15 Tietz, Norbert W. : Biuret Method for the Determination of Total Protein in Serum and Exudates. Fundamentals of Clinical Chemistry, 1976, pages 302-304.
- 16 Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
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