



Certificate of Analysis

QC Code: GIBCO

Fetal Bovine Serum, Qualified
Heat Inactivated

Lot Number: 2697722RP
Item Number: 10438
Expiration Date: 2028-04
Storage Temp: <= -10C
Country of Origin: Mexico

For research use or further manufacturing use only. Serum and blood proteins are not for direct administration into humans or animals.

Sterile filtered (triple 0.1 um)

TEST	TEST ID	SPECIFICATION	RESULT	UNITS
Electrophoretic Pattern	ELECTR0001	Normal	Normal	
Endotoxin Testing	ENDO0007	0.00 - 50.00	3.13	EU/mL
Hemoglobin	HAEMO0002	0.0 - 25.0	5.3	mg%
Mycoplasma Testing	MYCO0013	Negative	Negative	
Mycoplasma, Supplemental (H-Stain)	MYCO0016	Negative	Negative	
Osmolality	OSMO0002	280 - 340	315	mOsm/kg
Performance Testing: Growth Assay	WI380001	Check and Record	146	%
Performance Testing: Plating Assay	PLATE0003	Check and Record	98	%
Performance: Relative Cloning Efficiency(RCE)	CLON0001	Check and Record	100	%
pH	PH0003	6.9 - 7.8	7.2	
Sterility Testing	STERI0006	Negative	Negative	
Tetracycline	TETR0003	None Detected	None Detected	
Total Protein	PROTEI0001	3.0 - 5.0	3.7	g/dL
VT - Bluetongue Virus FA	VIRUS0048	Negative	Not Measured	
<i>- Testing not required for Mexican or Australian origin material. Testing required for Canadian origin material.</i>				
VT - Bovine Adenovirus FA	VIRUS0029	Negative	Negative	
VT - Bovine Parvovirus FA	VIRUS0028	Negative	Negative	
VT - BVDV Fluorescent Antibody	VIRUS0005	Tested	Tested	
VT - Cytopathogenic Agents	VIRUS0032	Negative	Negative	
VT - Hemadsorbing Agents	VIRUS0033	Negative	Negative	
VT - Rabies Virus FA	VIRUS0030	Negative	Negative	
VT - Reovirus FA	VIRUS0031	Negative	Negative	
VT- BRSV Fluorescent Antibody	VIRUS0041	Negative	Negative	
VT- USDA Bluetongue Virus	VIRUS0040	Negative	Negative	
<i>- Testing required for Mexican or Australian origin material. Testing not required for Canadian origin material.</i>				

Read SDS

Manufacturing address (Filtration): 3175 Staley Road, Grand Island, New York, 14072, USA.
Country of further treatment: (Heat Inactivation) = United States.

Testing performed prior to heat inactivation unless otherwise stated.

GIBCO brand, Thermo Fisher Scientific 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.

ABATTOIR-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. Thermo Fisher Scientific serum processes are traceability certified by the International Serum Industry Association (ISIA).

COUNTRY OF ORIGIN: Fetal Bovine Serum is collected and processed in countries recognized by the USDA as being free of Foot and Mouth Disease, Rinderpest and Bovine Spongiform Encephalopathy.

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.

NOTICE: Effective 12OCT2022 the Product Description has been updated per ECR1095723. If you have questions regarding this change, please contact Thermo Fisher Scientific Technical Support at 1-800-955-6288 in North America or Techsupport@thermofisher.com globally.

Notice: For lots manufactured from 08NOV2020, The product description has been updated, the manufacturing address has been added, and product notes have been updated per ECR1067136. These changes will not impact product quality, stability or performance and there are no associated changes in the manufacturing, storage or transport processes. If you have questions regarding this change, please contact Thermo Fisher Scientific Technical Support at 1-800-955-6288 in North America or techsupport@thermofisher.com globally.

Notice: For lots manufactured from 28NOV2017, the storage temperature and intended use for this product has changed per ECR1038162 and ECR1038594. These changes will not impact product quality, stability or performance and there are no associated changes in the manufacturing, storage or transport processes. If you have questions regarding this change, please contact Thermo Fisher Scientific Technical Support at 1-800-955-6288 in North America or techsupport@thermofisher.com globally.
Parent Lot no is 2697717RP



Quality Systems Department

Date: 31-Jul-2023

References

- ELECTR0001: Protein Electrophoresis.
- ENDO0007: Current United States Pharmacopeia, <85> Bacterial Endotoxins Test.
- HAEMO0002: Fleming, A.F. and Woolf, A.J. (1965) Clin. Chem. 12, 67.
- MYCO0013: Barile, M.F. and Kern, J. (1971) P.S.E.M.B. 138, 432, Thermo Fisher Scientific Modified.
- MYCO0016: Hoechst H Stain Chen, T.R. (1977) Exp. Cell Res., 104, 255 Thermo Fisher Scientific Modified.
- OSMO0002: Thermo Fisher Scientific Specifications.
- WI380001: Thermo Fisher Scientific 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.
- PLATE0003: Thermo Fisher Scientific Specifications, Ref.: GIBCO Catalog. Cell Line Used: Human Lung Carcinoma (A549), ATTC No. CCL-185. Analysis of cellular attachment and proliferation of a human transformed cell line.

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- CLON0001: 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.
 - PH0003: Thermo Fisher Scientific Specifications.
 - STERI0006: Current edition of USP.
 - TETR0003: Thermo Fisher Scientific Specifications. Analysis of tetracycline in fetal bovine serum (FBS). Protein precipitation is performed on the FBS sample followed by a reverse phase HPLC separation of tetracycline from endogenous components of the protein free serum supernatant. The assay detects the presence of tetracycline in FBS at a part per billion level.
 - PROTEI0001: Tietz, Norbert W. : Biuret Method for the Determination of Total Protein in Serum and Exudates. Fundamentals of Clinical Chemistry, 1976, pages 302-304.
 - VIRUS0048: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0029: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0028: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0005: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0032: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0033: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0030: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0031: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0041: Virus Testing (VT) is performed according to the Code of Federal Regulations, (CFR), Title 9, Part 113.53 (c) [113.46, 113.47].
 - VIRUS0040: Virus Testing (VT) is performed by the sheep inoculation test by the U.S. Department of Agriculture, Animal and Plant Inspection Service, National Veterinary Services Laboratories, Ames, Iowa.