

Certificate of Analysis

Product Fetal Bovine Serum Origin Australia, sterile-filtered
 Cat. No. FBS-52A (500 ml), FBS-52B (100 ml), FBS-52F (50 ml)
 Lot No. CP16-1037
 Expiry Date 03/2019
 Storage $\leq -15^{\circ}\text{C}$

Quality Profile	Specification	Results	
pH	6.8 – 8.2	7.1	
Osmolality ⁽¹⁾	280 – 340	313	mOsm/kg
Endotoxin ⁽²⁾	< 30	< 0.58	EU/ml
Hemoglobin ⁽³⁾	≤ 20	18.4	mg/dl
Identity ⁽⁴⁾	Typical	Typical	
Protein profile			
Total Protein ⁽⁵⁾	3.0 – 4.5	3.7	g/dl
Albumin ⁽⁶⁾	As reported	1.9	g/dl
IgG ⁽⁷⁾	≤ 250	42	mg/l
Sterility Testing			
Sterility ⁽⁸⁾	Sterile	Sterile	
Mycoplasma ⁽⁹⁾	Not detected	Not detected	
Virus Testing			
Bovine Virus Diarrhoea Virus (BVD-V) ⁽¹⁰⁾	Not detected	Not detected	
Bovine Herpes Virus 1 (BHV-1) ⁽¹¹⁾	Not detected	Not detected	
Parainfluenza Virus Type 3 (PI-3) ⁽¹¹⁾	Not detected	Not detected	
Antibody Testing			
BVD-1 Antibody Titre ⁽¹²⁾	As reported	Negative	
BVD-2 Antibody Titre ⁽¹²⁾	As reported	Negative	
Biological Performance			
Cell Growth MRC-5 (Human Lung Fibroblasts) ⁽¹³⁾	$\geq 75\%$	80%	
Cell Growth L929 (Mouse Fibroblasts) ⁽¹³⁾	$\geq 75\%$	95%	

Intended Use: For research or further manufacturing use only.

Certificate of Analysis

Product Fetal Bovine Serum Origin Australia, sterile-filtered
Cat. No. FBS-52A (500 ml), FBS-52B (100 ml)
Lot No. CP16-1037
Expiry Date 03/2019
Storage $\leq -15^{\circ}\text{C}$

References/Methods

- | | |
|--------------------------------|---|
| (1) Freeze Point Depression | (8) Membrane Filtration, Current EP |
| (2) Kinetic-Turbidimetric Test | (9) Current EP |
| (3) Spectrophotometry | (10) Cytopathic Effect in Cell Culture and Immunofluorescence |
| (4) Electrophoresis | (11) Cytopathic Effect in Cell Culture |
| (5) Biuret | (12) SNT (Serum Neutralization Test) |
| (6) Electrophoresis | (13) Growth Promoting Assay (Acid Phosphatase Activity) |
| (7) ELISA | |

The signature indicates that the results mentioned above were approved.

Signed: *Katrin Richter*

Name: Katrin Richter

Document release date: January 29, 2016