



## CERTIFICATE OF ANALYSIS

Product Name: M199 Medium  
With Earle's Salts and L-Glutamine  
Without L-Arginine, L-Lysine, and Sodium Bicarbonate

MADE IN THE USA

Catalog Number: MDP02

Storage: 2 to 8°C

Manufacture Date: APR-2014

Lot Number: 04140020

Expiration Date: 30-APR-2019

| Test                              | Specifications   | Results     |
|-----------------------------------|--|-------------|
| Appearance                        | Off-White to Orange Powder   | Pass        |
| Solubility (in H <sub>2</sub> O)  | 9.39 g/L in ≤ 30 minutes   | 3 minutes   |
| Moisture Content                  | ≤ 2%   | < 1.5%      |
| Particle Size (100 mesh)          | ≥ 90%  | > 95%       |
| pH ( <i>measured at 25°C</i> )    |  |             |
| Without NaHCO <sub>3</sub>        | Record   | 4.56        |
| With 2200 mg/L NaHCO <sub>3</sub> | Record   | 7.35        |
| Osmolality                        |  |             |
| Without NaHCO <sub>3</sub>        | Record mM/Kg   | 249 mM/Kg   |
| With 1200 mg/L NaHCO <sub>3</sub> | Record mM/Kg   | 288 mM/Kg   |
| Endotoxin                         | ≤ 1.0 EU/mL  | < 0.1 EU/mL |
|                                   | <i>Endotoxin testing was performed using the LAL detection method.</i>   |             |
| Mycoplasma                        | Negative   | NEGATIVE    |
|                                   | <i>Mycoplasma test was performed using MycoAlert® Mycoplasma Detection Assay.</i>  |             |
| Animal Cell Culture               |  |             |
| Cell Growth Promotion             | 3 Passages   | PASS        |
| Viability                         | ≥ 80%  | > 85%       |
|                                   | <i>Medium was supplemented with 10% FBS, 2200 mg/L NaHCO<sub>3</sub>, 70 mg/L L-Arginine HCl, and 70 mg/L L-Lysine HCl, adjusted to pH 7.27, then tested using CHO cells grown in a monolayer in a 5% CO<sub>2</sub> atmosphere.</i> |             |

**This product was produced and tested in accordance with all relevant SOP's and meets or exceeds the quality standards established by Caisson Laboratories, Inc.**

*This product is intended for laboratory use only.*

Prepared by:

Reviewed by:

BSE/TSE Declaration

To the present state of our knowledge we declare that this product does not contain any BSE/TSE AGENT. This declaration is given in good faith and no warranty express or implied with respect to quality and properties is made.

Kurt Rieben  
Quality Control

12-JUN-2018