

## **CERTIFICATE OF ANALYSIS** Foundation B™ Fetal Bovine Serum (Catalog Number 900-208) Heat Inactivated\*

Lot Number:

A25H74K

Date of Manufacture: Oct2019

Origin:

Mexico (100%)

**Product Expiry:** Oct2024

For Cell culture, Further Manufacturing or Research

use Only. Not for Direct Therapeutic Use.

**Storage Temperature**: ≤ -10°C

**Product description:** Foundation B™ Fetal Bovine Serum is sterile-filtered through a 0.1 μm filter prior to freezing.

| Test  | Methodology            | Specification   | <b>Anal</b> ysis          |
|---|------------------------|-----------------|---------------------------|
| Biological Testing                            |                        |                 |                           |
| Endotoxin                                     | USP<85>, EP 2.6.14     | Test and Report | >50 EU/mL                 |
| Hemoglobin                                    |                        | Test and Report | 7.9 <mark>7 mg</mark> /dL |
| Microbiological Testing                       |                        |                 | _                         |
| Sterility                                     | USP<71>, EP 2.6.1      |                 |                           |
| Bacteri <mark>a</mark>                        |                        | No Growth       | No Growth                 |
| Fungi <u> </u>                                |                        | No Growth       | No Growth                 |
| Mycoplasma                                    | Barile, MF and Kern, J | Not Detected    | Not Detected              |
|   | (1971), EP 2.6.7       |                 |                           |
| Viral Testing                                 | 9CFR 113.53c[113.46,   |                 |                           |
|   | 113.47]                |                 |                           |
| Cyto <mark>pat</mark> hic Agents              |                        | Not Detected    | Not Detected              |
| Hemadsorbing Agents                           |                        | Non-Reactive    | Non-Reactive              |
| Bovi <mark>ne Vi</mark> ral Diarrhea Ab Titer |                        |                 |                           |
| Type I  |                        | Test and Report | 1:8                       |
| Type II                                       |                        | Test and Report | 1:4                       |
| Extraneous Viruses (FAb)                      |                        |                 |                           |
| Bluetongue Virus                              |                        | Not Detected    | Not Detected              |
| <b>Bovine Adenovirus</b>                      |                        | Not Detected    | Not Detected              |
| <b>Bovine Parvovirus</b>                      |                        | Not Detected    | Not Detected              |
| Bovine Viral                                  |                        | Not Detected    | Not Detected              |
| Diarrhea(cytopathic)                          |                        |                 |                           |
| Bovine Viral                                  |                        | Test and Report | Not Detected              |
| Diarrhea(non-cytopathic)                      |                        |                 |                           |
| <b>Bovine Syncytial Virus</b>                 |                        | Not Detected    | Not Detected              |
| <b>Bovine Rabies Virus</b>                    |                        | Not Detected    | Not Detected              |
| Reovirus                                      |                        | Not Detected    | Not Detected              |



| Physical Testing   Electrophoretic Pattern   Cellulose Acetate   Normal   Somolality   USP<785>, EP 2.2.35   260 – 350 mOsm/kg   309 mOsm/kg   PH@RT   USP<785>, EP 2.2.35   260 – 350 mOsm/kg   309 mOsm/kg   PH@RT   USP<791>   6.5 – 8.5   7.39   Responsibility   | Test                      | Methodology         | Specification      | Analysis                   |
|--|---------------------------|---------------------|--------------------|----------------------------|
| Osmolality pH@RT         USP<785>, EP 2.2.35         260 – 350 mOsm/ kg         309 mOsm/kg           Biochemistry         Biochemistry         Biochemistry         Albumin         Test and Report         2.3 g/dL           Alkaline Phosphatase         Test and Report         2.9 U/L         ALT (SGPT)         Test and Report         8 U/L           AST (SGOT)         Test and Report         32 U/L         6 U/L         7 U/L         6 U/L         7 U/L         6 U/L         7 U/L         6 U/L         7 U/L <td>Physical Testing</td> <td></td> <td>•</td> <td></td>   | Physical Testing          |                     | •                  |                            |
| DIFFER   | Electrophoretic Pattern   | Cellulose Acetate   | Normal             | Normal                     |
| ## Biochemistry   Albumin  | Osmolality                | USP<785>, EP 2.2.35 | 260 - 350 mOsm/ kg | 309 mOsm/Kg                |
| Albumin Alkaline Phosphatase A | pH@RT                     | USP<791>            | 6.5 – 8.5          | . •                        |
| Alkaline Phosphatase  Alkaline Phosphatase  Alkaline Phosphatase  Test and Report  AST (SGOT)  Test and Report  AST (SGOT)  Test and Report  ACT (SGOT)  Test and Report  ACT (SGOT)  Test and Report  ACT (SOUT)  Test and Report  Tool ommol/L  Progesterone  Test and Report  Test and | Biochemistry              |                     |                    |                            |
| Alkaline Phosphatase         Test and Report         209 U/L           ALT (SGPT)         Test and Report         8 U/L           AST (SGOT)         Test and Report         32 U/L           GGT         <10 U/L  | Albumin                   |                     | Test and Report    | 2.3 g/dL                   |
| AST (SGOT)  GGT  GGT  C10 U/L  6 U/L  8ilirubin, Total  BUN  Test and Report  Test and Repo | Alkaline Phosphatase      |                     | Test and Report    | 209 U/L                    |
| GGT  | ALT (SGPT)                |                     | Test and Report    | 8 U/L                      |
| Bilirubin, Total BUN Test and Report Test and  | AST (SGOT)                |                     | Test and Report    | 32 U/L                     |
| BUN Calcium Test and Report Te | GGT                       |                     | <10 U/L            | 6 U/L                      |
| Calcium Calcium Chloride Chloride Chloride Chloride Cholesterol Cholesterol Cortisol Creatinine Creatinine Calcium Calcium Calcium Calcium Creatinine Calcium Cal | Bilirubin, Total          |                     | Test and Report    | 0.1 mg/dL                  |
| Chloride Chloride Cholesterol Cholesterol Cholesterol Cortisol Creatinine Estradiol Glucose Glucose Glucose Insulin Insulin Iron, Serum Phosphorus Progesterone Protein, Total Sodium Test and Report Test and | BUN                       |                     | Test and Report    | 17 mg/dL                   |
| Cholesterol Cortisol Cortisol Creatinine Estradiol Glucose Glu | Calcium                   |                     | Test and Report    | 13.0 mg/dL                 |
| Cortisol Creatinine Test and Report Creatinine Test and Report | Chloride                  |                     | Test and Report    | 96 mmol/L                  |
| Creatinine Estradiol Estradiol Glucose Glucose IgG ELISA Insulin Iron, Serum Phosphorus Progesterone Protein, Total Sodium Test and Report Te  | Cholesterol               |                     | Test and Report    | 27 mg/dL                   |
| Estradiol Glucose Glucose ITest and Report ITest and Report IgG ELISA Insulin Iron, Serum Phosphorus Potassium Protein, Total Sodium Test and Report Test and  | Cortisol                  |                     | Test and Report    | 0.536 ug/dL                |
| Glucose  IgG ELISA   | Creatinine                |                     | Test and Report    | 2.7mg/dL                   |
| IgG ELISA <0.300 mg/mL** 0.282 mg/mL Insulin Test and Report 4.78uIU/mL Iron, Serum Test and Report 163 μg/dL Phosphorus Test and Report 10.3 mg/dL Potassium Test and Report >10.0 mmol/L Progesterone Test and Report <0.06 ng/mL Protein, Total Biuret 2.5 – 6.0 g/dL 3.4 g/dL Sodium Test and Report 135 mmol/L Testosterone Test and Report 135 mmol/L Test and Report 15.6 ug/dL Test and Report 15.6 ug/dL Test and Report 76 mg/dL Test and Report 76 mg/dL Tetracycline <4 ng/mL <0.01 mg/mL Uric Acid  | Estradiol                 |                     | Test and Report    | 52.5 pg/mL                 |
| Insulin Iron, Serum Phosphorus Potassium Protein, Total Sodium Test and Report Test and Repor  | Glucose                   |                     | Test and Report    | 113 mg/dL                  |
| Iron, SerumTest and Report163 μg/dLPhosphorusTest and Report10.3 mg/dLPotassiumTest and Report>10.0 mmol/LProgesteroneTest and Report<0.06 ng/mL   | lgG                       | ELISA               | <0.300 mg/mL**     | 0.28 <mark>2 mg/m</mark> L |
| Phosphorus Potassium Potassium Progesterone Protein, Total Sodium Test and Report Pest and Report Protein, Total Biuret Test and Report Test a | Insulin                   |                     | Test and Report    | 4.7 <mark>8uIU</mark> /mL  |
| Potassium Progesterone Progesterone Protein, Total Protein, Total Protein Prot | Iron, Serum               |                     | Test and Report    | 1 <mark>63 μg</mark> /dL   |
| Progesterone Protein, Total Protein, Total Biuret  2.5 – 6.0 g/dL 3.4 g/dL 3.5 mmol/L Test and Report Test and | Phosphorus                |                     | Test and Report    | 10.3 mg/dL                 |
| Protein, Total         Biuret         2.5 - 6.0 g/dL         3.4 g/dL           Sodium         Test and Report         135 mmol/L           Testosterone         Test and Report         <0.01 ng/mL   | Potassium                 |                     | Test and Report    | >10.0 mmol/L               |
| Sodium Test and Report Testosterone Test and Report  | Progesterone              |                     | Test and Report    | <0.06 ng/mL                |
| Testosterone         Test and Report         <0.01 ng/mL           T3         Test and Report         140 ng/dL           T4         Test and Report         15.6 ug/dL           Triglycerides         Test and Report         76 mg/dL           Tetracycline         <4 ng/mL   | Protein, Total            | Biuret              | 2.5 – 6.0 g/dL     | 3.4 g/dL                   |
| T3 Test and Report 140 ng/dL T4 Test and Report 15.6 ug/dL Triglycerides Test and Report 76 mg/dL Tetracycline <4 ng/mL <0.01 mg/mL Uric Acid Test and Report 3.1 mg/dL  | Sodium                    |                     | Test and Report    | 135 mmol/L                 |
| T4 Test and Report 15.6 ug/dL Triglycerides Test and Report 76 mg/dL Tetracycline <4 ng/mL <0.01 mg/mL Uric Acid Test and Report 3.1 mg/dL   | Testosterone              |                     | Test and Report    | <0.01 ng/mL                |
| Triglycerides Test and Report 76 mg/dL  Tetracycline  4 ng/mL  <0.01 mg/mL  Uric Acid Test and Report 3.1 mg/dL  | Т3                        |                     | Test and Report    | 140 ng/dL                  |
| Tetracycline <4 ng/mL <0.01 mg/mL Uric Acid Test and Report 3.1 mg/dL  | T4                        |                     | Test and Report    | 15.6 ug/dL                 |
| Uric Acid Test and Report 3.1 mg/dL  | Triglycerides             |                     | Test and Report    | 76 mg/dL                   |
|  | Tetracycline Tetracycline |                     | <4 ng/mL           | <0.01 mg/mL                |
|  | Uric Acid                 |                     | Test and Report    | 3.1 mg/dL                  |

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. \*Results are reliable prior to Heat Inactivation.

The testing that has been performed as part of this lot release has been reviewed by Quality Assurance personnel and has confirmed that the testing meets the specifications presented on this Certificate of Analysis.

| Megha Khalasi     | PA Ascirciate III |
|-------------------|-------------------|
| Name 26 Feb 20120 | Title             |
| Date              |                   |