

CERTIFICATE OF ANALYSIS

Human holo-Transferrin

Powder

(Catalog Number 800-131P)

Lot Number: H123005

Origin: United States

Date of Manufacture: Feb2022

Storage Temperature: 2°C - 8°C

Product Expiry: Dec2026

For Cell culture, Further Manufacturing or Research use Only. Not for Direct Therapeutic Use.

| Test | Methodology | Specification | Analysis |
|-------------------------|-----------------------------------|-----------------------|----------------------------------|
| Biological Testing | | | |
| Bioburden | BBI SMP 1097 | <10 cfu/mL | <10 cfu/mL |
| Endotoxin | LAL | ≤1 EU/mg | <0.126 EU/mg |
| Microbiological Testing | | | |
| Mycoplasma | | Not Detected | Not Detected |
| Viral Testing | | | |
| HBsAg | | Non-Reactive | Non-Reactive |
| Anti-HCV | | Non-Reactive | Non-Reactive |
| Anti-HIV-1/HIV-2 | | Non-Reactive | Non-Reactive |
| ALT | | Negative | Negative |
| Syphilis | | Negative | Negative |
| HBV-NAT | | Non-Reactive | Non-Reactive |
| HIV-NAT | | Non-Reactive | Non-Reactive |
| HAV-NAT | | Non-Reactive | Non-Reactive |
| HCV-NAT | | Non-Reactive | Non-Reactive |
| Parvo B19-NAT | | Non-Reactive | Non-Reactive |
| Physical Testing | | | |
| Appearance | | Report | Salmon Pink to Reddish Powder |
| pH @ RT, 3% Solution | | 6.5 - 8.0 | 7.3 |
| Moisture | | ≤5.0% | 0.93% |
| Solubility | | Readily Soluble at 1% | Pass |
| | | in De-ionized water | |
| Optical density | | Report | 12.48 |
| Biochemical Testing | | | |
| Purity | Cellulose Acetate Electrophoresis | ≥98% of total protein | Pass |
| Protein Analysis | | >98% | 102.21% |
| SDS-Polyacrylamide Gel | | Conforms | Conforms |
| Iron Estimated by ICP | | 1200-1700 ppm | 1255 ppm |



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Results shown were obtained by carefully performed methods believed to be reliable. However, since some results may vary for specific tests depending on the methodology and other variables, it is suggested that tests for which results are particularly important to be repeated by the user of this product. All human blood products are collected from stringently screened donors at FDA-licensed collection centers in the United States. All donors are tested and found to be negative for Indirect Antiglobulin. Single homogenous batch, heat treated at $62^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 10 hours and lyophilized from approximately 0.02M NH₄HCO₃. May contain traces of buffer salts. Dispensed by dry weight. Store at $2^{\circ}\text{C} - 8^{\circ}\text{C}$. Allow temperature to equilibrate to room temperature prior to use.

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

| Karen Zuniga | |
|----------------|--|
| Name | |
| QA Associate 1 | |
| Title | |
| 02MAR2023 | |
| Data | |