

CERTIFICATE OF ANALYSIS

| Albumin bovine Fraction V | Cat.No. : | 11945 |
|---|------------|--------|
| Protease- and Fatty-Acid-free, diagnostic grade, lyophil. | Contr.No.: | 141112 |

| Parameter | Method | Specification | Result |
|------------------------------------|------------------------------------|--|----------------|
| Molecular weight | | ca. 67 000 | |
| Appearance | Visual inspection | white to yellow with tan to green cast lyophilisate | corresponds |
| Solubility | 4 % in H ₂ O | clear to slightly hazy, faint yellow to yellow- green solution | corresponds |
| Protein (%) protein factor 6.22 | Nitrogen analyzer dry weight basis | ≥ 98 | 101.2 |
| Purity (%) | Agarose zone electrophoresis | ≥98 | 100 |
| pН | 10 % solution | 6.5 - 7.5 | 7.0 |
| Moisture (%) | Loss on drying | 0 - 5.0 | 1.7 |
| Ash (%) | Residue on ignition | ≤ 2 | 1.4 |
| IgG (bovine) | Turbidimetric analysis | not detected | not detected |
| Protease | Enzymatic assay | $\leq 0.005~U/mg$ | $<0.005\ U/mg$ |
| Fatty acids (%) | Enzymatic assay | < 0.01 | < 0.001 |
| Heavy metals (ppm) | Atomic absorption | < 10 | < 0.48 |
| Endotoxin (EU/ mg) | LAL | < 3 | < 0.1 |
| Minimum shelf life | | | 09/ 2017 |
| Storage (°C) | | | +2 to +8 |

This product was derived from bovine blood collected at a USDA licensed establishment located in the United States. The animals received ante- and post-mortem health inspection at the abattoir by a Veterinary Medical Officer, USDA Food Safety and Inspection Services, and they were apparently free from infectious and contagious diseases and injuries parasites.

During the manufacturing process, the material was subjected to a pH of \leq 5 and a temperature in excess of 65°C for at least 3 hours and was not commingled with any other material of animal origin. Blood collection records are incorporated into the manufacturing batch documents.

We do not guarantee that the product can be used for a special application. This document does not release you from performing the standard control upon receipt of incoming goods.

SERVA Electrophoresis GmbH Quality Control

Dipl.-Ing. (FH) Bernhard Göckel

Patricia Milford

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