

**Bovine Serum Albumin**  
**Reagent Grade, Fatty Acid Free Powder**  
*Protease Free and Low Endotoxin*

Proliant NZ Ltd Bovine Serum Albumin (BSA) is a high purity, lyophilized "Fraction V" powder derived from the plasma of MPI-inspected healthy New Zealand origin animals. The albumin is isolated from other plasma protein products and lipids by a unique proprietary, non-solvent procedure. The separation process includes a modified Cohn / heat-shock procedure designed to inactivate proteases and other potentially interfering enzymes. Further processing such as extensive membrane dialysis and filtration (including charcoal filtration), minimizes analytes including non-esterified fatty acids, that can cause background interference in sensitive in vitro diagnostic (IVD) assays as well as inhibition in sensitive cell and microbial culture systems. Typical purity levels are in excess of 99%. Proliant's New Zealand Sourced Reagent Grade, Fatty Acid Free bovine albumin product is ideal for the most sensitive diagnostic and research applications.

**APPLICATIONS**

- Protease-sensitive Immunoassays such as RIA, EIA, Fluorescent and Chemiluminescent
- Protein Standard, Diluent
- Protein, Conjugate or Enzyme Stabilizer
- Hybridization, nucleic acid-based assays
- Fatty acid sensitive cell culture systems

**FEATURES / BENEFITS**

- High Purity, Low Interference, Low Background
- Virtually No Detectable Protease Activity, Ensures Assay Integrity
- Origin Traceability to Facilitate Regulatory Approval
- "Closed Loop" Manufacturing\*
  - Minimizes Contamination and Maximizes Reproducibility
- Superior Solubility/Filterability for Ease of Use
- Product Development and Technical Services designed for maximum responsiveness and Flexibility.
- Manufactured from MPI inspected Bovine Plasma
- Manufactured According to FDA cGMPs
- Validated for Prion (TSE) Clearance
- MPI Health Certificate
- USDA/APHIS registered for Shipment to the US

**SCIENTIFIC ANALYSIS**

	<b><u>Specification</u></b>	<b><u>Typical Values</u></b>
Protein (dry basis)	≥ 98%	99.0%
Purity (albumin)	≥ 98%	100%
Solubility (4% water)	Clear/slightly hazy	Clear/slightly hazy
Moisture	≤ 5.0%	< 2%
pH (10% water)	6.5-7.5	6.8-7.2
Ash	< 2%	1%
Protease	≤ 0.005 Units/mg	≤ 0.005 Units/mg
NEFA	<0.01%	<0.005%vvvv
Bovine IgG	Not Detected	Not Detected
Endotoxin	≤ 3 EU/mg	0.1 EU/mg
Heavy Metals (Pb)	≤ 10 ppm	< 1 ppm

Na, Cl, K, P, Ca are tested and can be reported on the Certificate of Analysis if requested

**PHYSICAL CHARACTERISTICS**

Proliant NZ Bovine Serum Albumin is a highly soluble yellow to green with tan to green cast lyophilized powder. A solution of up to 30% in de-ionized water is clear to slightly hazy and virtually particulate-free.

**PACKAGING**

Standard package size is 10kg.  
Smaller sample sizes for evaluation are available.

**STORAGE RECOMMENDATIONS**

Store sealed in a cool, dry environment for 3 years, and up to 5 years with re-qualification.

**ORDERING INFORMATION**

Please order by product name "Bovine Serum Albumin Reagent Grade, Fatty Acid Free Powder" and refer to SKU # 69700. Proliant New Zealand Limited  
27-33 Kawakawa Road, Feilding, 4775, NEW ZEALAND  
PO Box 366, Feilding, 4740, NEW ZEALAND.  
Phone: 64 6 280 4150. [www.proliantinc.com](http://www.proliantinc.com)

\*Proliant's unique "Closed Loop" Manufacturing means that we collect only in exclusive abattoirs with our own approved proprietary collection system. The material undergoes ante-and post-mortem inspection to ensure it is the highest edible grade before it is shipped to our manufacturing facility. No other manufacturer can claim this important closed link, as they must buy their raw material from outside sources and the spot market.

What's more, from the time our product enters our tanks to the moment it is loaded into the dryers, the product is not exposed to the external environment. Once the raw material reaches our cGMP plant, the material is loaded directly into our process and manufactured through a series of closed tanks, lines, filters and separation equipment. In our plant, there are no exposed filter presses or open tanks, nor is any non-food grade or noxious solvent material introduced into the process. There is also no possibility of contamination with other animal-derived products or bovine tissues in our completely dedicated facility.

## Certificate of Analysis

Date Prepared: 28, February, 2019  
 Date of Manufacture: 11, October, 2017  
 Date of Expiry: 10, October, 2022  
 Product Description: Bovine Serum Albumin Lyophilized Powder  
 Reagent Grade Fatty Acid Free  
 For Research or Further Manufacturing Use Only

Lot #: **NZ72840101**  
 SKU #: 69700

**Analysis:**

<u>Analyte</u>	<u>Specification</u>	<u>Result</u>	<u>Method</u>
Purity	≥ 98.0%	100.0%	Agarose Gel
Protein (Dry Basis)	≥ 98.0%	101.3%	By calculation
Moisture	≤ 5.0%	1.7%	AOAC 930.15
Ash	< 2%	0.9%	AOAC 923.03
B1gG	None Detected	Complies	Turbidimetric Analysis
NEFA	<0.01%	Complies	Enzymatic Assay
Solubility	Clear to slightly hazy.	Pass	4% Solution in H <sub>2</sub> O (visual clarity)
Protease	Yellow to yellow-green None Detected	None Detected	Enzymatic Assay (Detection limit 0.005 units/mg)
pH (10% Solution)/Temp	6.5-7.5/Ambient	7.0	10% Solution in H <sub>2</sub> O
pH (1% Solution)/Temp	6.5-7.5/Ambient	6.9	1% Solution in NaCl
Heavy Metals (Pb)	≤ 10 ppm	< 1 ppm	AOAC 984.27 (Modified)
Endotoxin	≤ 3 EU/mg	< 0.01 EU/mg	LAL
APC	≤ 1,000 cfu/g	< 10 cfu/g	AOAC 990.12
Total Coliforms MPN	≤ 100 MPN/g	< 3 MPN/g	USFDA-BAM
Salmonella	Absent/25g	Absent	PCR-Salmonella by GeneScan
E. coli by MPN	≤ 10 MPN/g	< 3 MPN/g	USFDA-BAM
Asepsis	None Detected	None Detected	Culture
BVD Virus	None Detected	None Detected	Virus Isolation
Mycoplasma	None Detected	None Detected	Culture
Pathogen Inducing Cytopathy	None Detected	None Detected	Virus Isolation
Pathogen Inducing Haemadsorption	None Detected	None Detected	Virus Isolation

  
**K Muggerridge**  
 Quality Department

28-Feb-2019  
 Date