

Bovine Serum Albumin (BSA) Fraction V

Product Description

Albumin has a key role for maintaining oncotic pressure, and is the main carrier for low molecular weight compounds such as fatty acids and hormones. Due to its versatile properties, BSA plays a major role in numerous biological applications such as blood grouping, cell culture or immunoassays (ELISA, RIA...). Bovine Serum Albumin can be used in most diagnostic and research applications, as protein standard, stabilizer and buffering or blocking agent.

Bovine Serum Albumin is often referred to as BSA or Fraction V and is used for a wide range of applications from diagnostic to cell culture and medical device applications. Life Science Group offers a number of products from different sources to offer the greatest options based on your research applications.

US Origin Material

BSA is a high purity Fraction V protein derived from the plasma of USDA-inspected healthy animals from abattoirs located in the United States. The material is initially fractionated by a modified Cohn procedure – a proprietary heat-shock method - and is further isolated from other plasma proteins and lipids by extensive membrane dialysis and filtration.

Key features and benefits:

- High purity product – typical purity is 99% pure, meaning low interference and low background.
- Virtually no detectable IgG, endotoxin, enzyme or protease activity. This ensures assay integrity, component stability and cell culture suitability.
- Origin traceability to facilitate regulatory approval.
- “Closed Loop” Manufacturing minimizes contamination and maximizes reproducibility.
- Superior Solubility/Filterability for ease of use.
- Manufactured according to FDA Bulk Pharmaceutical Chemical cGMPs.
- Validated for Prion (TSE) Clearance. Product supplied with a TSE Certificate of Suitability.

EU Origin Material

BSA is obtained by a proprietary Heat-Shock method, designed to prevent the excessive use of denaturing organic solvents. It undergoes a thermal inactivation during 3 hours at 65 °C in order to inactivate potential viruses. Lyophilized BSA has been 0.2 µm filtered prior to being freeze-dried.

Bovine plasma used for the manufacture of this product is collected from French healthy cattle declared free from BSE disease in its clinical forms. It is sourced in EU-approved French slaughterhouses.

NZ Origin Material

BSA is a high purity Fraction V protein derived from the plasma of healthy animals from abattoirs located in the New Zealand. The material is initially fractionated by a modified Cohn procedure – a proprietary heat-shock method - and is further isolated from other plasma proteins and lipids by extensive

membrane dialysis and filtration. BSA from New Zealand is suitable for pharmaceutical applications is supplied with full qualifying documentation

Product Availability

BSA is available in many different grades, depending on the intended use/application:

Standard Grade pH 7.0 is the ideal choice for most diagnostic and research applications including Protease-sensitive Immunoassays such as RIA, EIA, Fluorescent and Chemiluminescent assays; as a protein standard, diluent; as a protein, conjugate or enzyme stabilizer; for hybridization; in selected Cell Culture applications.

Standard Grade pH 5.2 is the ideal choice for most diagnostic and research applications including Protease-sensitive Immunoassays such as RIA, EIA, Fluorescent and Chemiluminescent assays; as a protein standard, diluent; as a protein, conjugate or enzyme stabilizer; for hybridization; in Insulin RIA.

Fatty Acid (Protease) Free BSA is used where the presence of lipids and fatty acids may cause problems, such as hormone and cholesterol assays. Fatty acid free albumin also provides maximum binding sites for the addition of specific fatty acids for cell culture applications. Additional applications include Protease-sensitive Immunoassays such as RIA, EIA, Fluorescent and Chemiluminescent assays; as a protein standard, diluent; as a protein, conjugate or enzyme stabilizer; for Hybridization, nucleic acid-based assays; in fatty acid sensitive cell culture systems such as CHO, Vero and MDCK cells.

Cohn Analog Grade is the ideal choice for microbial culture and reproductive biology applications. These applications include, but are not limited to, Mammalian Cell Culture, Ex-Vivo Medical Devices and as a Protein Base or Filler. In addition, Cohn Analog can be used in the culture of fastidious microorganisms such as *leptospira* and *B. bergdorferi*.

Low Endotoxin BSA is particularly recommended for use in animal and insect cell culture and as a carrier protein for haptens.

Protease Free BSA is suitable for stabilising/enhancing diluent in enzyme systems, immunohaematology, RIA systems, blood banking reagent, blood banking reagents, binding and transport studies, as a protein base or filler, as a protein standard, in ELISA (blocks non-specific binding) and as a carrier protein for haptens.

Low IgG BSA is suitable for use in animal and insect cell culture, as an enzyme system diluent, I immunological assays and for protein stabilisation.

Polymerised Type I and II BSA have been specifically developed for use in blood grouping applications. This product is also supplied in a liquid format with 0.09% sodium azide added.

Polymerised Type III BSA is particularly recommended for use as a stabiliser in many applications

Polymerised Type IV BSA has been developed for use as a coating agent to avoid non-specific reactions

Product Information

Product Code	Product Description	Pack Size
US Sourced		
BSA-68100-XX	BSA Standard Grade, pH 7.0 – lyophilised *	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg
BSA-68500-XX	BSA Standard Grade, pH 5.2 – lyophilised *	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg
BSA-68700-XX	BSA Reagent Grade, Fatty Acid-Free – lyophilised *	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg
BSA-68300-XX	BSA Cohn Analog Grade, Culture Grade – lyophilised *	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg
EU Sourced		
BSA-7100070-XX	BSA Standard Grade Lyophilised	1kg
BSA-7100030-XX	BSA Standard Grade - 30% solution	1L, 5L
BSA-7100570-XX	BSA Protease Free Lyophilised	1kg
BSA-7100530-XX	BSA Protease Free 30% solution	1L, 5L
BSA-7101070-XX	BSA Low Endotoxin - lyophilised	1 kg
BSA-7101030-XX	BSA Low Endotoxin – 30% solution	1L, 5L
BSA-7101170-XX	BSA Very Low Endotoxin – lyophilised	1 kg
BSA-7101130-XX	BSA Very Low Endotoxin – 30% solution	1L, 5L
BSA-7102570-XX	BSA pH 5.2 - lyophilised	1 kg
BSA-7102530-XX	BSA pH 5.2 – 30% solution	1L, 5L
BSA-7103570-XX	BSA Fatty Acid Free - lyophilised	1 kg
BSA-7103530-XX	BSA Fatty Acid Free – 30% solution	1L, 5L
BSA-7106170-XX	BSA Low IgG – lyophilised	1 kg
BSA-7106130-XX	BSA Low IgG – 30% solution	1L, 5L
BSA-7114130-XX	BSA Polymerized Type I + Sodium Azide - 30% solution	1L, 5L
BSA-7104170-XX	BSA Polymerised Type I - lyophilised - EU origin	1kg
BSA-7114230-XX	BSA Polymerised Type II + Sodium Azide - 30% solution - EU origin	1L, 5L

BSA-7104330-XX	BSA Polymerised Type III - 30% solution - EU origin	1L, 5L
BSA-7114330-XX	BSA Polymerised Type III + Sodium Azide - 30% solution - EU origin	1L, 5L
BSA-7104430-XX	BSA Polymerised Type IV - 30% solution - EU origin	1L, 5L
BSA-7104470-XX	BSA Polymerised Type IV - lyophilised EU origin	1kg
NZ Sourced		
BSA-69100-XX	BSA Standard Grade, pH 7.0 – lyophilised *	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg
BSA-69700-XX	BSA Reagent Grade, Fatty Acid Free, Protease free, low endotoxin	10g, 25g, 50g, 100g, 250g, 500g, 1kg, 10 kg

**Other presentations are available on request, such as 22% or 30% solutions. Solutions can be provided as sterile filtered or frozen, preserved or non-preserved, and as an isotonic or non-isotonic preparations.*

Batch Sampling

LSP offer samples of BSA for evaluation. Typical sample size is 10 g or 100mL. If a specific batch is required, reservations are held for a period of 2 months, pending evaluation.

Shelf life

Lyophilised BSA has a shelf life of 3 years from date of manufacture. This can be extended up to 5 years with re-qualification (for certain products only).

BSA solutions have a shelf life of 2 years from the date of manufacture.

Storage & Handling

Recommended storage is sealed in a cool, dry environment.

Lyophilisation imparts a broader temperature tolerance and longer shelf-life to the product. As a result, lyophilised product can be shipped and stored at 4°C without affecting the products integrity or efficacy until it is reconstituted. Once reconstituted, it must be filtered to retain sterility, and stored appropriately.

Shipping

Lyophilised product ships on blue ice.

Frozen product ships on dry ice.

Liquid product ships on cool packs.

Disclaimer

Only for research or manufacture of *in vitro* diagnostic reagents. Not for therapeutic use.

Support

Life Science Production is a division of Life Science Group Ltd.

Life Science Production is [ISIA Traceability Certified](#)

Life Science Group Ltd is an ISO 9001:2015 Certified company

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