Bovine Serum Albumin Protease Free Lyophilised

Storage conditions: Store dry powder at +2°C to +8°C, protected from light

Shelf life: 36 months

Composition: Bovine Serum Albumin

pH: 6.95 ± 0.45 (10% solution w/v in water)

Purity: > 97%

Proteases: Undetectable

Proteins: > 92%

Recommended use:
- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store the product in a dry area
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall…)
- Protect the product from any form of humidity
- Use, in one time, after opening, the entire quantity of product of the container. If it is not possible, close the container immediately after sampling the quantity of powder required

The product is intended to be used in vitro for research or further manufacturing only and not for use as an Active Pharmaceutical Ingredient or food or animal feed.

Application:
Our Bovine Serum Albumin 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 Serum Albumin (BSA) is a non-glycosylated protein of 66 kDa. Produced by the liver, it is the most abundant protein in plasma. BSA makes up approximately 60% of all proteins in animal serum. It is commonly used in cell culture protocols, particularly where protein supplementation is necessary and the other components of serum are unwanted. In cell culture its main role is as a carrier of small molecules. Because of its negative charge, BSA binds water, salts, fatty acids, vitamins and hormones, then carries these bound components between tissues and cells. The binding capacity also makes BSA an effective scavenger to remove toxic substances, including pyrogens, from the medium.

Albumins are readily soluble in water and can only be precipitated by high concentrations of neutral salts such as ammonium sulphate. The solution stability of BSA is very good (especially if the solutions are stored as frozen aliquots). In fact, albumins are frequently used as stabilizers

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for other solubilised proteins (e.g., labile enzymes). However, albumin is readily coagulated by heat. When heated to 50°C or above, albumin quite rapidly forms hydrophobic aggregates which do not revert to monomers upon cooling. At somewhat lower temperatures aggregation is also expected to occur, but at relatively slower rates.

Human and bovine albumins contain 16% nitrogen and are often used as standards in protein calibration studies.

Albumin is used to solubilise lipids, and is also used as a blocking agent in Western blots or ELISA applications.

Traceability:
All bovine proteins are obtained from Bovine Spongiform Encephalopathy (BSE) free countries or animals declared BSE free by the European authorities.

Uses:
Lyophilized BSA should be dissolved in deionised water or in usual physiological buffers, under gentle agitation between +10°C and +25°C. For biological applications requiring aseptic conditions, filtration has to be done after solubilisation.

Signs of deterioration:
Prepared solution should be clear of particulate and flocculent material. Other evidence of deterioration may include degradation of physical performance characteristics.

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