ClearLine	Technical data sheet Media Powder	Ref : 509385

Bovine Serum Albumin Lyophilised pH~7

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

Shelf life: Between 24 and 36 months depending on the supplier.

Composition: Bovine Serum Albumin

pH: 7 ± 0.5

Purity: > 97%

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:
This Bovine serum albumin (BSA) is made in a two stage process, starting with the ethanol fractionation process, followed by a caprylic acid stabilized heat-shock finishing step that further purifies the bovine serum albumin by removing residual globulin proteins.

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 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.

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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:
Not applicable.

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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