

Bovine Serum Albumin Fraction V 30%

CAT N°: SA-296

Collected from the source: Not applicable

Country of origin:

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

Storage conditions: 2°C to 8°C

Shelf life: 36 months

Filtration: Not applicable

Theoretical pH: 6.5 – 7.4

Osmolality: Not applicable

Endotoxin: Not applicable

Haemoglobin: Not applicable

Cell Culture: Not applicable

Total Protein: Not applicable

Sterility tests:

- Bacteria in aerobic and anaerobic conditions
- Fungi and yeasts

Virus test: Not applicable

Other tests: Not applicable

Treatments: Not applicable

Recommended use:

- Respect storage conditions of the product
- Do not use the product after its expiry date
- Store product in an area protected from light
- Manipulate the product in aseptic conditions (e.g. : under laminar air flow)
- Wear clothes adapted to the manipulation of the product to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)
- It is recommended to aliquote the product to avoid opening the bottle multiple times.

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

Remarks:

Our Bovine Serum Albumin (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.

BSA makes up approximately 60% of all proteins in animal serum. It is a non-glycosylated protein of 66 kD, produced by the liver.

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 sulfate. The solution stability of BSA is very good (especially if the solutions are stored as frozen aliquots). In fact, albumins are frequently used as stabilisers for other solubilized 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.

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

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