

For life science research only.
Not for use in diagnostic procedures.



Bovine Serum Albumin Fraction V

 **Version: 11**

Content Version: November 2022

Lyophilized

Cat. No. 10 735 078 001	50 g
Cat. No. 10 735 086 001	100 g <i>Not available in US</i>
Cat. No. 10 735 094 001	500 g <i>Not available in US</i>
Cat. No. 10 735 108 001	1 kg <i>Not available in US</i>

Store the product at +2 to +8°C.

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1. General Information

1.1. Contents

Vial / bottle	Label	Catalog number	Content
1	Bovine Serum Albumin Fraction V	10 735 078 001	1 vial, 50 g
		10 735 086 001	1 vial, 100 g
		10 735 094 001	1 vial, 500 g
		10 735 108 001	1 bottle, 1 kg

1.2. Storage and Stability

Storage Conditions (Product)

When stored at +2 to +8°C, the product is stable through the expiry date printed on the label.

Vial / bottle	Label	Storage
1	Bovine Serum Albumin Fraction V	Store at +2 to +8°C.

Reconstitution

Bovine Serum Albumin Fraction V is readily soluble at concentrations of 50 to 100 mg/ml.

⚠ To prevent foaming, always use gentle stirring to dissolve the protein. Adding a non-ionic detergent to the solution will also minimize its tendency to foam.

Albumin solutions can vary from colorless to light yellow or light greenish-yellow; the color of the solution does not affect its function.

1.3. Application

Bovine Serum Albumin Fraction V can be used in a variety of applications:

- Buffer component in immunochemistry, biochemistry, cell biology, and molecular biology.
- Reducing agent
- Protein blocker; saturation of all protein binding sites in ELISAs, Southern blots, and western blots.
- Stabilizer
- Media supplement; for media that require addition of protein.
- Carrier protein
- Standard protein; gel electrophoresis, protein determination.

2. How to Use this Product

2.1. Parameters

Contaminants

Analysis	[%]
Water	<5
Sodium (flame photometry)	<0.5
Potassium (flame photometry)	<0.006
Lithium (flame photometry)	<0.0003
Calcium (o-cresolphthalein)	<0.02
Magnesium (xylydyl blue)	<0.003
Heavy metals (as Pb)	<0.003
Iron (bathophenanthraline)	<0.001
P (inorganic)	<0.002
Chloride (mercurom.)	<0.15
Glucose (enzym.)	<0.05
Glycerol (enzym.)	<0.005
L-Lactate (enzym.)	≤0.1
Microorganisms	<100 organism/g

Molecular Weight

68,000 Da (583 amino acids)

pH Stability

pH 6.5 – 7.2

Purity

Analysis	[%]
Albumin	≥98 gel electrophoresis
Protein	≥95

3. Additional Information on this Product

3.1. Test Principle

Ligand binding

Bovine Serum Albumin, Fraction V binds many substances reversibly. Therefore it can serve as a transport or carrier protein in the body. The most important function of albumin in the body is the transport of lipids and free fatty acids. The ligand binding properties of albumin serves two purposes in the laboratory:

- It can release bound components into the reaction mixture, and
- It can adsorb impurities from the medium.

Since albumin binds many anions and cations, it can also be used in ion binding studies.



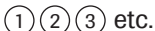

The affinity of albumin for ligands depends on the hydrophobic character of the molecules and their charge.

Molecules with long alkyl chains and negatively charged groups are bound very firmly, while molecules with short chains and positively charged groups are bound less firmly. Ligands that are bound by albumin include fatty acids, cationic and neutral detergents, acetylcholine, ascorbic acid, penicillin, thyroxin, digitonin, hormones, metal ions, bilirubin, sugars, and drugs.

4. Supplementary Information

4.1. Conventions

To make information consistent and easier to read, the following text conventions and symbols are used in this document to highlight important information:

Text convention and symbols	
 <i>Information Note: Additional information about the current topic or procedure.</i>	
 Important Note: Information critical to the success of the current procedure or use of the product.	
 etc.	Stages in a process that usually occur in the order listed.
 etc.	Steps in a procedure that must be performed in the order listed.
* (Asterisk)	The Asterisk denotes a product available from Roche Diagnostics.

4.2. Changes to previous version

Change of section **pH Stability**.
Editorial changes.

4.3. Trademarks

All product names and trademarks are the property of their respective owners.

4.4. License Disclaimer

For patent license limitations for individual products please refer to:
List of biochemical reagent products and select the corresponding product catalog.

4.5. Regulatory Disclaimer

For life science research only. Not for use in diagnostic procedures.

4.6. Safety Data Sheet

Please follow the instructions in the Safety Data Sheet (SDS).

4.7. Contact and Support

To ask questions, solve problems, suggest enhancements or report new applications, please visit our **Online Technical Support Site**.

To call, write, fax, or email us, visit **sigma-aldrich.com**, and select your home country. Country-specific contact information will be displayed

