Technical Info

Well advised with Roth.

TSE-/BSE-free

Bovine Serum Albumins (BSA)

Bovine Serum Albumins (BSA) are proteins yielded from blood, which function as binding and transport proteins in blood circulation. Depending on the preparation process, the albumins contain different quality and quantities of metabolic products, enzymes, peptides, fatty acids, vitamins, etc. and are suitable for different applications.

The first known fractionation method for obtaining BSA from blood was *Cohn fractionation*, named after the American chemist Erwin J. Cohn (1892-1953). It is a procedure for the gentle separation of plasma proteins by precipitation with ethanol at low temperatures (0-10 °C). The plasma proteins are separated by ethanol at different concentrations, as well as by the specific choice of pH, ionic strength and temperature into several fractions, each of which is suitable for certain diagnostic and therapeutic purposes.

In fact, however, recovery methods have been significantly optimized since Cohn, so that many serum albumins are now obtained by modified ethanol fractionation methods, heat shock, or preparative chromatography.

All Carl Roth bovine serum albumins are produced using an extensive **heat shock/diafiltration method**. The process is taking place in a closed system and has been shown to bring more highly purified products than the standard process acc. to Cohn.

'**Fraction V**' as a synonym for BSA:

Regardless of the recovery/fractionation method, serum albumin is found in fraction V. For this reason, the term 'Fraction V' has become established over the years, whereby this designation is nowadays a synonym for BSA and does not imply any specific purification method.

Molar extinction coefficient: $4{,}4 \times 10^4$ L x mol^{-1} x cm^{-1} (acc. to 0,667 L x mol^{-1} x cm^{-1} for a 0,1 % solution)

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