SPECTRUM

The Creative Approach to Bioscience

BOVINE SERUM ALBUMIN (BSA)

BSA 22%	BSA 30%
REF: 922 001 (1 X 10 ml)	**REF:** 924 001 (1 X 10 ml)
REF: 922 002 (10 X 10 ml)	**REF:** 924 002 (10 X 10 ml)

SYMBOLS IN PRODUCT LABELLING

IVD For in-vitro diagnostic use	Use by/Expiration Date
LOT Batch Code/Lot number	CAUTION. Consult instructions for use
REF Catalogue Number	Manufactured by
Consult instructions for use	
Temperature Limitation	

Intended Use

Spectrum Diagnostics Bovine Serum Albumin is intended for the in-vitro use

Background

Incomplete antibodies have the ability to combine with their specific antigens in the first stage of agglutination but will not produce visible agglutination without the use of special techniques. Addition of bovine albumin to the cell suspension enable some of these antibodies to complete the second stage of agglutination . Albumin has been shown to enhance the sensitivity of the indirect antiglobulin test for some antibody specificities

Reagents

Spectrum 22% and 30% Bovine albumin reagents are prepared from bovine serum albumin. The polymer content of spectrum 22% polymer Enhanced Bovine Albumin is increased naturally by a process modification . No artificial avidity enhancers or high molecular weight agglutination potentiators are added to BSA. These reagents do not contain sodium caprylate. Sodium azide at 0.1 % is added as a preservative . these reagents should be used as supplied by the methods described ; their suitability for use in other techniques must be determined by the user.

Precautions

For in vitro diagnostic use only . Store at 2-8 ^{o}C when not in use . Do not freeze or expose to elevated temperatures .market turbidity may indicate reagent deterioration or contamination. Spectrum Bovine Albumin solutions are derived from accredited and inspected herds from areas where the risk of bovine spongiform encephalopathy is negligible. Additionally, during the manufacturing process the reagents are subjected to conditions of high temperature and low PH for extended periods. Such procedures have been shown to completely inactive BSE-like agent

Specimen Collection

Fresh serum obtained from a fully clotted specimen should be used in compatibility or antibody identification procedures. Red cells obtained from samples with or without anticoagulants can be used in antigen detection tests.Draw a blood specimen using an acceptable phlebotomy technique. Testing should be performed as soon as possible. If testing is delayed store samples at 2 - 8 ^{o}C. Serum or Plasma can be separated from the cells and frozen

Technique - Albumin Replacement Method

1- Prepare a 2 - 3% suspension of red cells in isotonic buffered saline (pH 6.9)
2- Place in a glass test tube
1 Volume of serum or plasma
1 Volume of 2-3% cell suspension
3- Mix well and incubate at 37 ^{o}C for 45 - 90 minutes.
4- With a fine pipette remove the supernatant saline-serum mixture, leaving the button of red cells
5- Add one volume of spectrum 22% Bovine Albumin.Taking care not to disturb the cell button
6- without mixing reincubate at 37 ^{o}C for 15-30 minutes
7- Examine for agglutination. Reactions may be examined with an optical aid, or microscopically. Record results.

Technique - Albumin Displacement Method

1- Follow steps 1-3 of albumin replacement method.
2- Upwardly displace the supernatant saline-serum mixture by carefully allowing one volume of Spectrum 30% Bovine albumin to run down the inside wall of the test tube.
3- Follow steps 6 and 7 of the Albumin Replacement Method

Technique - Albumin Mix Method

1- Prepare a 2 - 3% suspension of red cells in isotonic buffered saline (pH 6.9)
2- Place in a glass test tube
1 Volume of serum or plasma
1 Volume of 2-3% cell suspension
2 Volumes of Spectrum 22% Bovin Albumin
3- Mix well and incubate at 37 ^{o}C for 15 - 60 minutes.
4- Centrifuge at 900 - 1000 rcf for 30 seconds.
5- Gently resuspend the cell button and Examine for agglutination. Record result

Technique - Indirect Antiglobulin Test

1- Follow steps 1-3 of albumin mix method
2- Wash the cells 3-4 times in isotonics buffered saline, decanting the saline completely after each wash
3- Add two volumes of Spectrum Anti Human Globulin to the dry cell button
4- Mix gently and centrifuge at 900- 100 rcf for 15 seconds
5- Gently resuspend the cell button and Examine for agglutination. Record result
6- Confirm validity of all negative reactions by using IgG sensitised red cells, such as spectrum Coombs Control cells

Technique - Antibody Titration Procedure

1- Prepare doubling dilution of test serum in either normal group AB serum or 6% bovine albumin (the latte can be prepared by mixing 1 part spectrum 30% bovine albumin with 4 parts isotonic buffered saline
2- Prepare a 2% suspension of appropriate washed red cells in spectrum 22% or 30% bovine albumin
3- Add 1 volume of 2% cell suspension to 1 volume of each serum dilution mix well and incubate at 37 ^{o}C for 15 - 60 minutes
4- Centrifuge at 900 - 1000 rcf for 30 seconds
5- Gently resuspend the cell button and Examine for agglutination. Record result
6- An antiglobulin test may be preformed on those cells showing weak or negative results
* Alternatively a time appropriate for the centrifuge being used may be determined i,e., that which produces the strongest reaction of antibody with antigen-positive cells, yet allows easy resuspension of antigen-negative cells

Stability of the reaction

Following the recommended procedures all tests should be read immediately and results interpreted without delay. Delays in reading or delays in completion of washing steps where appropriate may result in dissociation of antigen antibody complexes, leading to false negative or weak positive reactions

Limitations

Bovine albumin will not enhance the reactivity of all blood group antibodies.
Bovine albumin solutions should not be used as negative controls for potentiated IgG blood grouping reagents. False positive or false negative results may occur due to improper technique or contaminated test materials.

Specific Performance Characteristics

Spectrum 22% and 30% Bovine Albumin solution have been shown to enhance agglutination of Rh and other antibodies when used according to insert methodologies. Each lot is tested to assure specificity in an antibody- free system with red cells Known to process the most frequently inherited blood group antigens.

Egyptian Company for Biotechnology (S.A.E)
Obour city industrial area. block 20008 piece 19 A. Cairo. Egypt.
Tel: +202 4489 2248 - Fax: +202 4489 2247
www.spectrum-diagnostics.com
E-mail:info@spectrum-diagnostics.com