Brucella Agglutinating Sera

Rabbit sera containing antibodies to Brucella abortus (ZM01/R30164801) and Brucella melitensis (ZM02/R30164901) preserved with 0.5% phenol. Each bottle, fitted with a teat and dropper, contains 2 ml liquid and is supplied ready to use.

On storage some sera become slightly turbid. This does not necessarily indicate deterioration and normally it will not interfere with the results, but the sera may be clarified by centrifugation or membrane filtration (0.45 μm) before use. Gross turbidity indicates contamination and such sera should be discarded.

1. INTENDED USE
Brucella Agglutinating Sera (Brucella abortus and Brucella melitensis) are intended as control antisera for Stained Brucella Suspensions (SS14/R30855501 and SS15/R30953501) in a standard Widal test for epidemiological and diagnostic purposes.

2. SUMMARY AND EXPLANATION OF THE TEST
Surface antigens of Brucella have two specificities termed A and M: most, but not all, Brucella abortus and B. suis strains have a high ratio of A antigens to M antigens, whereas the reverse is true for most B. melitensis strains. Brucella sera are used as controls to check that the suspensions are performing satisfactorily.

3. PRINCIPLE OF THE PROCEDURE
Serological tests are based on the fact that antibodies in serum, produced in response to exposure to bacterial antigens, will visibly agglutinate with bacteria carrying homologous antigens.

4. REAGENTS
KIT CONTENTS
Brucella Agglutinating Sera 1 dropper bottle (2 ml)
Brucella abortus ZM01/R30164801
Brucella melitensis ZM02/R30164901

5. DESCRIPTION, PREPARATION FOR USE AND RECOMMENDED STORAGE CONDITIONS
See also Warnings and Precautions

6. WARNINGS AND PRECAUTIONS

7. SPECIMEN COLLECTION, TRANSPORT AND STORAGE
Store at 2 to 8°C. For control purposes only.

8. PROCEDURE

MATERIALS PROVIDED
See Kit Contents.

MATERIALS REQUIRED BUT NOT PROVIDED
1. Brucella stained suspensions available in bottles of 5 ml liquid:
   - Brucella abortus Code No. SS14/R30855501
   - Brucella melitensis Code No. SS15/R30953501

2. 0.85% saline or 0.5% phenol saline.
3. Test tubes and rack.
6. Pipettes 100 μl to 1000 μl.

TEST PROCEDURE

Tube Agglutination – Stained Suspension
This is performed as a Widal test control for the activity of the suspensions.

Step 1 Make one row of serum dilutions for each test as shown in Table 2 using 0.85% saline as diluent. Mix the contents of tube 1 and transfer 1 ml to tube 2, mix and transfer 1 ml to tube 3 and so on, up to but not including tube 8, finally discarding 1 ml from tube 7.

Step 2 Shake the suspension, including any contents of the in-dwelling pipette. Dispose one drop of the suspension to each tube.

Step 3 Mix the contents of the tubes well, and incubate at 37°C for 24 hours before reading.

Step 4 Examine for agglutination, strong back lighting is not necessary.

9. RESULTS
If there is agglutination in the control tube the suspension should be discarded. The antisera are not standard sera and although titres should approach those given on the bottle labels, the exact titres may not always be obtained.

10. LIMITATIONS OF THE PROCEDURE
Antigens in common with those of Brucella have been described in Yersinia enterocolitica, Vibrio cholerae and Salmonella species. Brucella agglutinating sera are only used as control antiserum for use with stained Brucella suspension.

11. EXPECTED RESULTS
Visible agglutination in the presence of homologous antigens.