

# Canine Brucellosis Antibody Test Kit

## D-TEC<sup>®</sup> CB

### DIRECTIONS

SLIDE TEST FOR *Brucella canis* ANTIBODIES  
STORE AT 2-7°C (35-45°F)  
DIAGNOSTIC REAGENT FOR VETERINARY USE ONLY

Manufactured by  
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### DESCRIPTION

The rapid slide agglutination test (RSAT) for the diagnosis of *Brucella canis* was described by George and Carmichael (Proc. Council Res. Workers in Animal Disease, November 1973). The basis of the test is direct agglutination of the killed stained antigen by *Brucella canis* antibodies.

### GENERAL INFORMATION

Canine brucellosis is a chronic infection with *Brucella canis* that causes generalized lymphadenitis and mild to severe reproductive symptoms. Prostatitis, epididymitis, scrotal dermatitis, testicular atrophy and impotence can be present in the male; abortion typically in the final two weeks of gestation, resorption, infertility, and vaginal discharge can be present in the female.

***Brucella canis* is infectious to humans. Caution should be exercised when handling serums to be tested.**

The test has been shown to presumptively diagnose infection with *Brucella canis* by detecting specific antibody that is formed 1 to 4 weeks after infection. The basis for serodiagnosis of canine brucellosis is the 2-Mercaptoethanol Tube Agglutination Test (2ME-TAT) and the Rapid Slide Agglutination Test (RSAT). The 2ME-TAT and RSAT have demonstrated excellent correlation in experimentally infected dogs. In field situations, it has been recognized that an occasional healthy dog, culturally negative for *Brucella canis* will react positively in the RSAT, but not in the 2ME-TAT. The 2-Mercaptoethanol – Rapid Slide Agglutination Test (2ME-RSAT) has been developed in an attempt to eliminate discrepancies between the RSAT and the 2-ME-TAT.

Certain non-specific agglutinins, reported to occur in the sera of normal dogs, are removed from canine sera when 2-mercaptoethanol is employed in the 2ME-TAT. Because of this occurrence, 2-mercaptoethanol is employed in the modified Rapid Slide Agglutination Test procedure.

### INDICATIONS

The reagents are used to presumptively diagnose infection with *Brucella canis* in dogs. Positive results require additional confirmation.

### PRECAUTIONS

Antigen and accompanying antiserum have been standardized and should be used together. Store components at 2-7°C (35-45°F). Do not allow reagents to stand at room temperature for excessive periods of time. **Do not freeze.**

### SAMPLE INFORMATION

Serum is required. Test may not be used with whole blood or plasma.

### Procedure for Rapid Slide Agglutination Test (RSAT)

1. **ENSURE REAGENTS AND SAMPLE ARE AT ROOM TEMPERATURE (70-78°F; 21-25°C) prior to testing.**
2. Cut card on dotted line. Two circles are used to perform each test.
3. Place one drop of **Reagent A, Positive Control** (Red Cap), in one circle of the supplied card.
4. Use a disposable plastic pipette to place one drop of test serum in another circle. Each test kit contains disposable pipettes to prevent serum cross contamination. Do not dispose of pipette until the 2ME-RSAT is completed.
5. Thoroughly mix **Reagent B, Antigen** (White Cap), by **vigorously** shaking the vial. Add one drop of the **Reagent B, Antigen**, close to each serum drop, being careful not to touch the serum with the dropper tip.
6. Mix each antigen-serum combination with a separate end of a stir stick, spreading to fill the circular area. Do not allow the positive control test to touch the unknown serum sample.
7. Gently rock the card for 10-15 seconds. Place on a flat surface and observe for agglutination for no longer than two minutes. If the serum is negative (absence of agglutination), the animal is considered not to be infected with *B. canis*. If the card tests positive, perform the 2ME-RSAT.

### Procedure For 2-Mercaptoethanol-Rapid Slide Agglutination Test (2ME-RSAT)

1. Add 2 drops of **Reagent C, 2-Mercaptoethanol** (Yellow Cap) to a tube containing 2 drops of the serum to be tested, and mix well.
2. Place 1 drop of this mixture on a new reaction circle.
3. Add 1 drop of **Reagent B, Antigen** as above to the serum solution and mix with stir stick as described above.
4. Gently rock the card for 10-15 seconds. Place on a flat surface and observe for agglutination for no longer than 2 minutes. When the RSAT-positive sample also tests positive by 2ME-RSAT, the animal is presumptively diagnosed as being infected with *B. canis*. Blood should be subjected to cultural examination for *B. canis*. When the RSAT-positive samples tests negative by 2ME-RSAT, the animal may be in the early stage of *B. canis* infection, or alternatively, its serum may contain non-specific agglutinins to *B. canis*. To distinguish between these two conditions, a second serum sample should be collected in approximately thirty days and retested by the 2ME-RSAT procedure. Only if this sample tests positive should the animal be presumptively diagnosed as having *B. canis* infection. Blood should then be subjected to cultural examination for *B. canis*.

Definitive diagnosis of canine brucellosis is based upon isolation of *B. canis* from the animal.

#### NEGATIVE TEST

No agglutination  
within two minutes

#### POSITIVE TEST

Agglutination within  
two minutes

### KIT CONTENTS

	10 Tests/Kit	25 tests/Kit
Reagents A - Positive Control	1 vial	1 vial
Reagent B - Antigen	1 vial	1 vial
Reagent C - 2-Mercaptoethanol, (0.2M solution)	1 vial	1 vial
Reaction cards	5 each	13 each
Pipettes	10 each	25 each
Stir Sticks	10 each	25 each

### REFERENCE

1. A Plate Agglutination Test for the Rapid Diagnosis of Canine Brucellosis. Lisle W. Gorge and L.E.Carmichael, presented November, 1973. *Proceedings of the Council of Research Workers in Animal Diseases*.