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Product Information

Name of Kit: **ImmunoComb® Bovine *Chlamydophila sp.* (*Chlamydia Sp.*) Antibody Test Kit**

Catalog No: 50BCP103/50BCP130

No of Tests: 30 (Standard Kit)/ 300 (Lab-size Kit)

Intended Use: The ImmunoComb® Antibody Test Kit is a diagnostic tool, which is suitable for monitoring herd health as well as working up clinical cases. Serologic testing for Chlamydophila (Chlamydia) is the only way to confirm that cows are free of this infection. Furthermore, Chlamydophila (Chlamydia) testing should be included in the diagnostic work-up of abortion in the herd.

Diagnostic Method: The ImmunoComb® test is based on solid phase "dot"-ELISA technology. Antigen is applied to test 'spots' on the solid phase, which is a comb-shaped plastic card (the Comb).

The samples to be tested are mixed with diluent in the first row of wells of a multi-chamber developing plate. The test spots on the Comb are then incubated with the samples in the developing plate. Specific IgG antibodies from the samples, if present, bind to the antigen at the test spots.

The Comb is then transferred to a well, where unbound antibodies are washed from the antigen spots. In the next step, the Comb is allowed to react with an anti-cow IgG Alkaline Phosphates conjugate, which will bind to antigen-antibody complexes at the test spots. After 2 more washes, the Comb is moved to the last well, where a color result develops via an

enzymatic reaction. The intensity of the color result of test spots corresponds directly to the antibody level in the test sample.

Pathophysiology: *Chlamydophila sp. (Chlamydia sp.*) is a well-recognized pathogen in cattle. Historically, the organism has been implicated as a cause of sporadic encephalomyelitis in calves. It is most commonly associated with abortion and genital infection, and is also known to cause arthritis.

Interpretation: The level of antibodies (i.e., antibody titer) is determined according to the intensity of the test color result. Specimens with colorless (white) or faint color result (S0–S2) are considered negative or low positive (suspicious).

Positive and negative control serum samples are included in the ImmunoComb® Bovine *Chlamydophila sp.* (*Chlamydia sp.*) Antibody Test Kit. The positive control has been calibrated to correspond approximately to an IFA titer of 1:32. The positive control spot on the Comb should develop a distinct grey color that is scored S3.

Specimens with identical or darker grey color results (S3 – S5) are considered positive. Delivery of infected fetuses stimulates a rise in antibody that peaks about 2-3 weeks following termination of pregnancy. Accordingly, testing paired serum samples (at the time of abortion and 2-3 weeks later) is recommended to check for sero-conversion.

Applications: To determine infection in cattle by *Chlamydophila sp.* by measuring IgG antibody titer.

Preferred Method of Diagnosis: Serology is used to evaluate antibody responses in pregnant cows with fetal chlamydial infection and abortion. The ELISA and IFA tests have proven to be more sensitive than the previously employed standard Complement Fixation Test (CF).

Reference:

Aiello, S. E. & Mays, A. (Eds.; 1998*). Abortion in cows,* in The Merck Veterinary Manual (8th Ed.), pp. 989-992. Merck & Co., Inc.: USA.

(PI BCP 2/12/04)