Bovine Pregnancy (PAG) Rapid Test Kit

Technical Manual

(GICA)

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Product Information

Intended Use

Pregnancy-associated glycoproteins (PAG) are specific proteins that appear in the peripheral blood of ruminants after conception and play an important role during pregnancy.

This kit is used for early pregnancy diagnosis in female cattle by detecting Pregnancy-Associated Glycoproteins (PAG) in blood samples from cows starting 28 days after breeding and up to before calving.

Principle

The kit uses colloidal gold immunochromatography assay (GICA). After being added to sample hole("S"), the sample will move along the nitrocellulose membrane with the gold markers. If the PAG level in the sample is above the detection threshold, the test ("T") line will appear; if the PAG level is below the detection threshold, the test("T") line will not appear.

Content

Package specification	10T/Kit
Test device (with disposable dropper)	10
Assay diluent	10
Disposable vacuum blood collection tube	10
Needle	10
Instruction	1

Storage Conditions

The kit shall be stored at 2°C to 30°C (35.6°F to 86°F) in dry environment. Avoid freezing.

Shelf life: 24 months. The date of manufacture is presented in the label of the box.

Preparation of Sample

Whole blood: Whole blood samples without anticoagulant should be tested before coagulation. If partial coagulation has occurred, separate serum for testing. Whole blood samples with anticoagulant should be tested within 1 hour. If immediate testing is not possible, samples may be stored at 2–8 °C for up to 3 days. Do not freeze whole blood samples.

Serum: Collect 2-3mL of blood using a collection tube without anticoagulant, let it stand for 30 minutes, and then centrifuge at 4000 rpm for 10 minutes. (Alternatively, the blood can be left undisturbed at 25-40°C for about 2 hours, allowing the serum to naturally separate.) Collect the supernatant as the processed sample. Samples can be stored at 2–8 °C for up to 7 days, while long-term storage requires -20°C.

Plasma: Collect blood using a vacuum tube containing anticoagulant, gently invert to mix, and centrifuge at 4000 rpm for 10 minutes to separate plasma. Samples can be stored at 2–8 °C for up to 7 days; for long-term storage, keep at –20 °C.

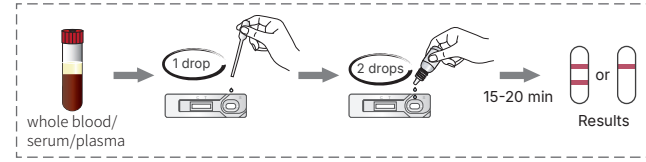
Serum and plasma sample should be clear and bright, free from hemolysis and contamination. Please note that sample should be return to room temperature (15-30°C) before use.

Test Methods

(1)Tear the foil pouch, take out the test card and put it on a flat surface.

(2)Use the provided dropper to aspirate the blood sample, dispense 1 drop into the sample hole ("S") of the test card. Then, immediately add 2 drops of the assay diluent above the sample hole.

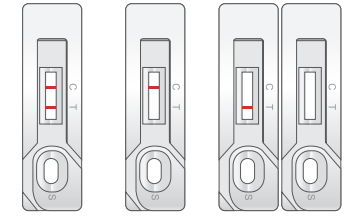
(3)Allow the test card to sit at room temperature for 15-20 minutes to determine the results. Results obtained after 20 minutes are considered invalid.



Results Judgement

Negative: Only control ("C") line appears in the result window.

Positive: Both test("T") line and control("C") line appear in the result window.



Invalid: If the control("C") line does not appear, the result might be considered invalid.

Interpretation of Test Results

1. Negative Result: Indicates that the PAG level in the sample is below the detection threshold, interpreted as

not pregnant.

2. Positive Result: Indicates that the PAG level in the sample is above the detection threshold, interpreted as pregnant.

Limitation of the Test Method

1. This kit is only for the detection of pregnancy-associated glycoproteins (PAG) in cow serum, plasma, or whole blood samples from 28 days after breeding and up to before calving. Results from testing other samples may be inaccurate. It is not recommended to conduct the test within 90 days postpartum to avoid false positive results.

2. For samples collected 28 days after mating, if the result is negative, it is recommended to retest after 7 days.

3. As with all diagnostic tests, a definitive diagnosis should not be made based on a single test result.

4. Due to methodological limitations, negative results should be interpreted with caution and considered in conjunction with other findings. For questionable negative results, retesting with an alternative method is recommended.

Notice

1) Avoid using expired or damaged products.

2) The kit is for single use only and must not be reused.

3) Pipettes must not be shared to avoid cross-contamination.

4) Test cards and reagents from different batches must not be mixed.

5) Once opened, the kit should be used as quickly as possible to avoid becoming ineffective due to moisture.

6) Avoid touching the white nitrocellulose membrane in the middle of the detection card.

7) Avoid using samples that are contaminated, turbid, severely hemolytic, and have a large amount of blood lipids.

8) Do not use tap water, purified water, or similar as the negative control.

9) Solid and liquid waste generated after using this product should be disposed of safely.