

T2 Toxin (T2) Rapid Test Kit

Technical Manual

(GICA)



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1 Principle and Application I

The test kit is used for detecting T2 Toxin (T2) in various samples such as grains and animal feeds.

The kit is developed using the principle of competitive colloidal gold Immunochromatographic Assay (GICA). After the sample solution is added to sample hole, if T2 is present, it will bind with gold labeled antibodies, thereby preventing the labeled antibodies from binding to the T2 conjugates on the nitrocellulose membrane.

If the content of T2 in the sample solution is less than detection limit, it will make the test ("T") line colored (The color is consistent with the control line or deeper) and the result is negative. If the content is greater than detection limit, no color reaction will be produced (or color is lighter than the control line) and the result is positive.

2 Technique Data I

Kit Sensitivity: 10ppb (ppb=μg/kg)

Detection Limits:

grains and animal feeds 10ppb

3 Kit Content I

Package specification	20T/Kit	50T/Kit
Test device (with dropper and gold-labeled well)	20	50
Assay Diluent	10mL×1	10mL×2
Instruction	1	1

4 Materials Required but Not Supplied I

4.1 Equipment: grinder (for crushing solid samples), vortex mixer (for shake and mix), centrifuge, graduated transfer pipette, nitrogen evaporator, balance with a division value of 0.01 g.

4.2 Micropipettes: single-channel (20-200μL and 100-1000μL).

4.3 Reagent: Ethyl acetate.

5 Sample Pre-treatment I

5.1 Cereal, Feed:

1) Take representative feed or grain samples, weighing more than 5 grams, and grind them (through a 20-mesh sieve). Accurately weigh 2 grams of the ground sample and place it in a 15 mL centrifuge tube.

2) Accurately add 3 mL of ethyl acetate to a 15 mL centrifuge tube, tightly seal the cap, vigorously shake for 3 minutes, and centrifuge at 4000 rpm for 3 minutes.

3) Transfer 1 mL of the supernatant to a 5 mL centrifuge tube. Dry it using a nitrogen evaporator (normal to have some yellowish oil in the bottom layer). Then add 0.3 mL (approximately 10 drops using provided dropper) of Assay

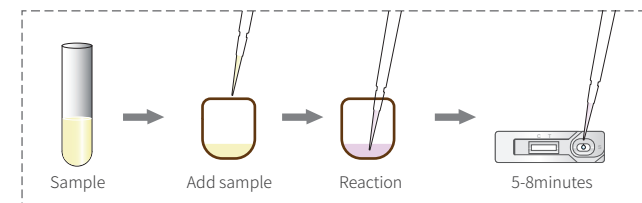
Diluent to dissolve any solid residues at the bottom and inner wall of the centrifuge tube. What obtained is the sample solution.

6 Test Steps I

1) Tear the foil bag, take out of the test card, gold-labeled well and dropper. Then put them on a flat, clean work surface.

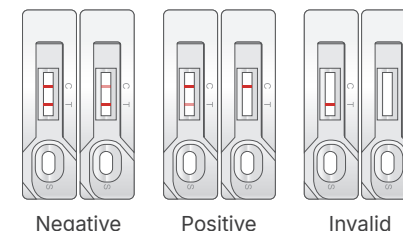
2) Use another provided dropper to draw 4-5 drops of the sample solution (or use a micropipette to transfer 120μL) into the gold-labeled well. Allow it to stand for 2 minutes, gently pipette up and down with the dropper (or a micropipette) to completely dissolve the purple-red substance at the bottom of the gold-labeled well. Allow it to stand for another 2 minutes. Draw all the liquid from the gold-labeled well and transfer it to the sample hole("S") on the test card. Start the timer.

3) Results should be read at 5-8 minutes, and any readings taken after 30 minutes is considered invalid.



7 Results Judgement I

Negative: Test ("T") line and control("C") line both appear in the result window. The color of the test



("T") line is consistent or deeper than the control("C") line. It indicates that the concentration of T2 in the sample is below the detection limit, or absent.

Positive: In the result window, the control("C") line appears, while the Test("T") line does not appear or appears lighter in color than the control("C") line. It indicates that the concentration of T2 in the sample is above the detection limit (T2 is present in the sample).

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

in dry environment.

Shelf life: 12 months. The date of manufacture is presented in the label of the box.

8 Notice |

8.1 Don't use the expired or damaged products.

8.2 When the test card is taken out of the refrigerator, it should be restored to the room temperature and then opened. The opened test card should be used as soon as possible to avoid failure after being affected by moisture.

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

8.4 In order to avoid cross-contamination, the droppers cannot pipet another liquid after pipetting one.

8.5 The sample solution to be examined needs to be clear, free of turbid particles and without bacterial contamination. Otherwise, it is prone to lead to blockage, non-obvious color development and other abnormalities, affecting the determination of the experimental results.

8.6 Avoid direct sunlight and direct exposure to electric fans during testing. Avoid direct sunlight and direct exposure to electric fans during testing.

9 Storage Conditions |

The kit shall be stored at 2°C to 30°C (35.6°F to 86°F)