BIOEASY

Deoxynivalenol Quantitative Test Kit for Cereals and Feed

Order Code: YR1F001D-2

Introduction

This quantitative rapid test is used for detection of Deoxynivalenol in cereals, feed, feed products, feed raw materials based on the colloidal gold immunochromatography technology. The whole process is divided into two parts: sample preparation and detection. It takes about 6mins for sample preparation and 7mins for detection.

Application

Applicable for the rapid test of Deoxynivalenol in cereals(Wheat, corn, rice and flour), feed raw materials(DDGS, sprayed corn husk, secondary flour, bran, cotton meal, wheat bran, corn gluten meal), feed products samples on-site or in laboratory.

Performance Information

Sensitivity: limits of detection (μg/kg-ppb)

Linear range	200-8000
Limit of quantitation	500

Storage and Shelf Life

Storage: Store at 2-30°C. Do not freeze. Keep away from direct sunlight, moisture and heat.
Shelf Life: 12 months.

Test Kit Components (48 tests/kit)

1. 6 test tubes, each containing 8 red reagent microwells and 8 dipsticks.
2. 2 bottles of DON Diluent.
3. 1 instruction manual.
4. 1 quantitative curve ID card.

Materials Required but not provided (available from Bioeasy)

1. 50% Ethanol (Mix same volume of 100% Ethanol with distilled water).

Note: It is recommended to prepare before use. If it was prepared in advance, make sure the container is well-sealed to prevent volatilization.

2. Reader：**YR-10 Test Strip Reader**

Sample Preparation

1. Weigh 5 ± 0.2g homogeneous milled sample and put into 50mL centrifuge tube.
2. Add 30mL of 50% Ethanol solution(v/v), vortex for 3mins to mix samples thoroughly.
3. Centrifuge at 4000r/min for 2mins.
4. Take 1000μL **DON Diluent** into a 1.5mL centrifuge tube, add into 20μL **centrifuged supernatant** and mix well. This is the **Detection Solution 1.**
5. Take 300μL **DON Diluent** into a new 1.5mL centrifuge tube, add into 100μL **Detection Solution 1** and mix well. This is the **Detection Solution 2.**

*(Note: If the "DON-1" option interpretation reading is more than 3000ppb(μg/kg), then select **Detection Solution 2** to test.)*

Test Procedure

(Before testing, check whether the instrument has imported the curve corresponding to the batch of products. If not imported, please insert the ID card of the corresponding batch of the product, then enter the "setting" interface, enter the password "1234", select "Load", and press "Load" to complete the update of the product curve of the new batch. If imported, please follow the following steps directly.)

1. Pipette 200μL **Detection Solution 1** into the red microwell and mix well by pipetting up and down 5-6 times to mix well. **Cover the incubator with the lid** and incubate **3mins** at temperature 40 ± 2°C.
2. Dip the dipstick into the microwell after the first incubation**(No need to cover the incubator)**.
3. Incubate **4mins** at 40 ± 2°C.
4. Take out the dipstick from the microwell and remove the sample pad at the lower end. Then place into the **YR-10 Test Strip Reader** and read the result **within 1min**.
5. Select **DON-1** option *to* read the result first..
6. If the result of **DON-1** is more than 3000ppb(μg/kg), then use **Detection Solution 2** to retest, repeat the test step 1-4 operation steps, select **DON-2** to perform the readings. Please take the result of the second test as the standard.

Note: After removing the sample pad at the lower end, the reading should be carried out immediately (the reading of the results should be completed in 1min). The interpretation results beyond the time limit are for reference only.

Brief Operating Procedures of YR-10 Reader

1. Connection: Connect the power cord;
2. Turn on: Turn on the power switch on the left side of the instrument.
3. Select "**Test**" and enter the sample detection interface.
4. Select "**Quantitative**" and enter the quantitative detection interface.
5. Select "**DON CF**" and enter the detection interface of DON.
6. Click on "**Test**", the slot in the lower right corner of the instrument will automatically extend. Take out the cassette and insert the test strip, and the cassette should be pushed to the end of the slot.
7. Click on "**Test**", and the slot will automatically enter and scan the test strip. Then the corresponding results will display on the screen.

Precautions

1. Do not mix use reagent microwells, dipsticks from different lots. Use the kit before it is expired.
2. Dipsticks and microwells are used once. Hold the dipstick from the upper side (Absorbing pad side). Do not touch the lower end (Sample pad and Nitrocellulose membrane areas), which may affect the performance of the dipsticks.

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3. The results should be read within 1min of the end of the second step, and the results after more than 1min are for reference only.
4. The quantitative linear range of this product is 200-8000μg/kg, and the results that are more than 8000μg/kg or less than 200μg/kg are for reference only.
5. Please do the test at the temperature between 20-30℃.
6. The test kit should be stored at 2-30 ℃ in a cool dry place. Restore the kit to room temperature before use, but avoid prolonged exposure to moisture and light.
7. When the reader detects that the recording memory is nearly insufficient, please export the test data in time, and then clean up the test data to avoid the lack of memory of the reader and affect the data storage.
8. This product is only used for preliminary screening, and the final result shall be subject to the official arbitration detection methods.

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