Zearalenone Rapid Test Kit

Art. No.: Q601-96T

Zearalenone (ZEN), also known as RAL and F-2 mycotoxin, is a potent estrogenic metabolite produced by some Fusarium and Gibberella species. Zearalenone is the primary toxin that binds to estrogen receptors, causing infertility, abortion or other breeding problems, especially in swine. Often, ZEN is detected together with deoxynivalenol in contaminated samples and its toxicity needs to be considered in combination with the presence of other toxins.

Zearalenone Rapid Test Kit is a competitive immunoassay lateral flow test, this product utilizes the high affinity of monoclonal antibody against zearalenone, which can identify zearalenone in wheat or corn. The detection of the kit can meet both European and USA MRLs when used properly.

1. Application

This kit can be used to quantitative detect zearalenone in wheat, and corn.

2. Performance

Limit of detection: **20μg/kg (ppb)**

Range of quantitation: **0 - 150μg/kg (ppb)**

3. Kit components

- Test Strip, 96 pcs in 12 plastic bottles, 8 pcs / bottle.
- Sample buffer, 55ml x 2 bottles
- 1 manual

4. Instruments and reagent required but not provided

- Portable reader
- Incubator
- Micropipette, 20-200μl, 100-1000μl, 1-10ml
- Pipette tips, gloves, centrifuge tube
- Sample extraction: 70% methanol-water solution (mass fraction)

5. Pretreatment

- **Preparation of reader**
  a) Switch on the portable reader, preheat for 5min.
  b) Switch on the incubator, adjust the temperature to 40°C.
- **Preparation of sample**
  1) Weight **5.0±0.02g** of homogenous sample into a centrifuge tube, then add **10ml** of sample extraction, vortex for 2min, and centrifuge for 3min at 4000rpm. Then take **200μl** of sample supernate into **1000μl** of sample buffer, mix thoroughly, the mixture act as the sample solution.
  2) Samples greater than quantification range will need to be diluted and retested. Dilute the sample supernate with sample extraction, the dilute with sample buffer.

6. Operations

a) Please read the operating instructions carefully before the experiment. Bring the test kit and samples to room temperature.

b) Remove the reagent bucket from the original packaging, then open it, remove the required number of microwell reagents and test strips, and mark them. Please use it as soon as possible within 60min. Immediately after removing the test reagent, cover the reagent lid.

c) 200μl of the sample solution was absorbed then tested into the microwells with a micropipette, slowly aspirate

and mix well with the reagents in the microwells.

d) After incubating for **3 min at 40ºC**, insert the labeled test strip into the microwell, allow it to fully immerse into the solution.

e) After incubating for **5 min at 40ºC** again, the test strip was taken out and judged according to the schematic diagram, and the other conditions was judged to be invalid.

Note：Please remove the sample pad after incubating, and dry the strip, then analyse result.

7. Result analysis

Remove the sample pad from the strip, immediatly after incubation.

Insert the test strip into the sample room of reader, then select the sample type, click “Rapid Test” to read the result.

If you conduct the 5.2 in your experiment, final result displayed will need to be multiplied.

8. Storage

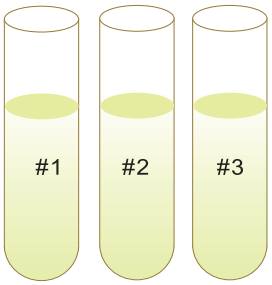
2-8ºC in cool dark place, do not freeze. The kit is valid for 12 months. Lot No. and expired date are printed on the package.

9. Notice and Precautions for a successful experiment.

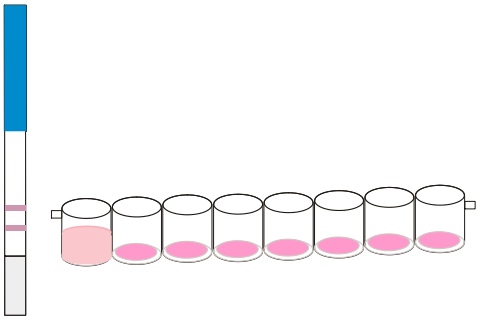
- Please test follow the operation steps. Do not touch the color zone of the strip.
- Immediately after the test reagent is removed, cover the reagent bucket lid. If you can't use 8 microwells at a time, immediately cover the remaining microwells with a microwell lid and put it back in the reagent bucket for sealed storage. When one bucket is used up, open another bucket to protect it from moisture.
- Do not mix test strips and microwell reagents with different batch numbers.
- This test strip is a one-off product and should not be reused.
- The test results of this product are for reference only. If you need to confirm, please refer to the relevant national standard methods.

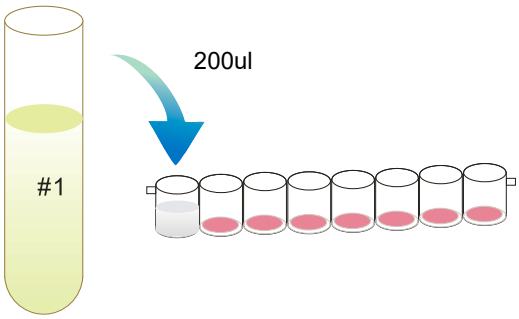
Schematic Assay Steps

1. Bring all test samples to room temperature; number them to keep record.

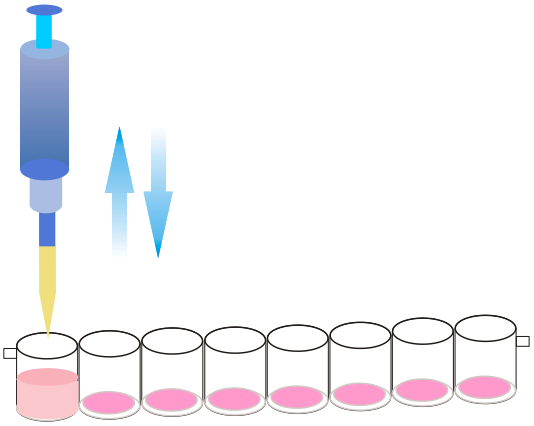


2. Take test kit according to your sample number and also number the kit wells to keep record and consistency.

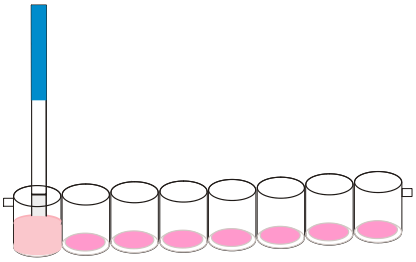




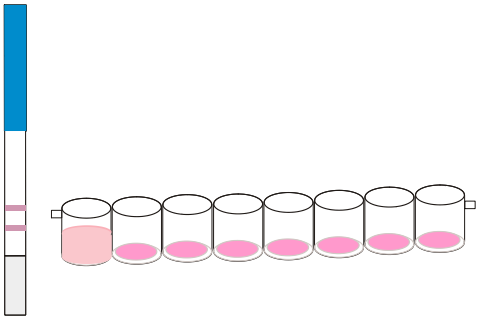
3. Take 200ul sample into the wells using pipet. You can also then put the well into the well holder to avoid sample spill.



4. Absorb up and down for 5 times to mix sample with reagent completely. Start the timer when the mixture is pink. **Incubate for 3 min at 40ºC.**



5. Insert the "**Immersed**" end of the strip into the mixture; **Incubate for 5 min at 40ºC again.**



6. Take out the strip; judge the result according to **kit instruction.**

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