SafetiX Zearalenone Strip Test Kit

Catalog No.: JFM904

INTENDED USE

The Zearalenone Strip Test Kit is a competitive chromatographic immunoassay for the semi-quantitative detection of the presence of Zearalenone in grains, feed materials, part of ready-product feed, spices. The assay could be used for on-site testing.

Detection Range: 5 μg/kg - 50 μg/kg (μg/kg = ppb)

PRINCIPLE

The Zearalenone Strip Test Kit is based on competitive lateral flow immunochromatographic assay. A test strip is placed inside a plastic cassette with a testing window. The specific antibodies for Zearalenone are labeled to the test system. The aflatoxins in specimen and the analytes complex pre-coated in the test strip would competitively bind to the antibodies. Result will be determined by if the colored red lines appears in the test zone.

STORAGE AND STABILITY

The kit should be stored at 2-8°C. The kit will be valid in 12 months. The test are stable through the expiration date printed on the label. **DO NOT FREEZE.** Do not use the kit beyond the expiration date.

PRECAUTIONS

- For best results, please strictly adhere to these instructions.
- Do not touch the membrane area of the test strips.
- Do not use the test beyond its expiration date marked on the foil pouch.
- The components in this kit have been quality control tested as standard batch unit. Do not mix components from different lot numbers.

MATERIALS

Materials Provided

- 8 dipsticks and 8 microwells sealed in one canister. 12 canisters each box.
- Assay buffer (2 bottle/box)
- Package insert for use

Materials Required But Not Provided

- Balance (sensibility: 0.1g)
- Micropipettes (20-200uL, 100-1000uL)
- Centrifuge tube (2mL, 50mL)
- Centrifuge
- Timer

Solutions (according to sample extraction)

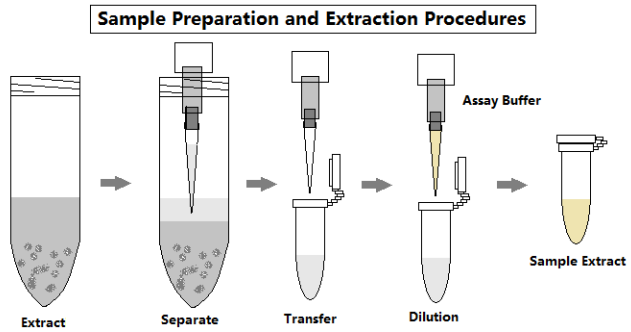
- Sample extraction solution (50% ethanol): 50mL ethanol + 50mL deionized or distilled water

SAMPLE PREPARATION AND EXTRACTION

Cut-offs: 5ppb, 10ppb, 20ppb, 30ppb, 50ppb

- Grind a representative sample to the particle size of fine instant coffee and pass through a 20-mesh screen. Weigh out 5.0g of sample into a 50mL centrifuge tube.
- Add 12ml of Sample Extraction Solution (50% ethanol) into the tube and screw the cap. Shake for 3minutes.
- Let it stand or centrifuge for 5 minutes at 4000r/min.
- Transfer 30 μL of supernatant layer of the extract into a new tube.
- Add assay buffer into the new tube for dilution according to the cut-off requirement listed in the following table. The diluted solution is the final Sample Extract for applying the assay.

Cut-off (ppb)	5	10	20	30	50
Assay Buffer(μL)	150	400	850	1280	2150



Cut-off: 2ppb

- Grind a representative sample to the particle size of fine instant coffee and pass through a 20-mesh screen. Weigh out 5.0g of sample into a 50mL centrifuge tube.
- Add 12ml of Sample Extraction Solution (50% ethanol) into the tube and screw the cap. Shake for 3minutes.
- Let it stand or centrifuge for 5 minutes at 4000r/min.
- Transfer 60 μL of supernatant layer of the extract into a new tube.
- Add 120 μL of assay buffer into the new tube for dilution. The diluted solution is the final Sample Extract for applying the assay.

NOTE: If the specimen is DDGS, corn germ cake, corn gluten cake, concentrate, corn fiber, corn bran, silage, and part ready-feed, please adjust the pH value of the supernatant

extract into pH 7.0-8.0 with 2.0mol/L of NaOH solution.

TEST PROCEDURE

Read the product insert carefully before running the assay. Allow the test kit, and specimen to room temperature (20-25°C) prior to testing.

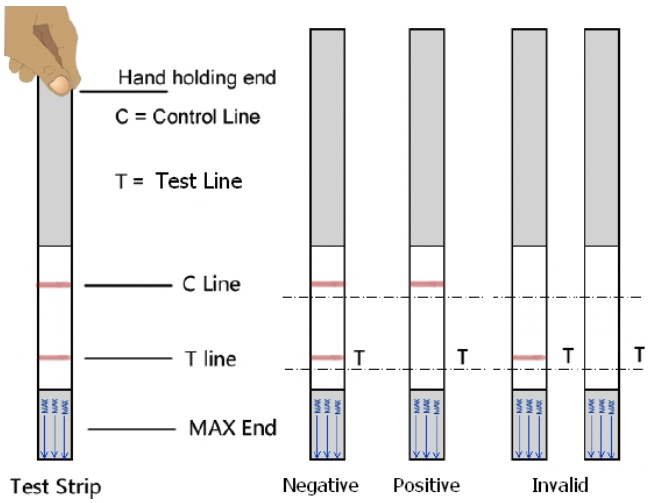
1. Bring the kit to room temperature (20-25℃) before opening. Remove the test dipsticks and microwells from the canister and use it as soon as possible within 1 hour. Remain the rest strips and microwells in the canister and seal the cap immediately for future use.
2. Transfer 150 μL of the final Sample Extract into one microwell with a micropipette. Repeatedly suck and extrude the specimen until all red reagents are completely dissolved and start the timer.
3. Incubate the mixture for 3 minutes at room temperature (20-25℃). Then insert a dipstick into the microwell with the MAX end and start the timer.
4. Incubate for another 8 minutes. Take out the dipstick and interpret the result immediately according to the color intensities

INTERPRETATION OF RESULTS

NEGATIVE

Both the test line and control line are visibly red.

POSITIVE



Colored C line is observed, no test line appears.

INVALID

Control line fails to appear. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Review the procedure and repeat the test with a new test dipstick. If the problem persists, discontinue using the test kit immediately and contact your local distributor.

QUALITY CONTROL

Internal procedural controls are included in the test. A colored line appearing in the control region (C) is an internal procedural control. It confirms sufficient specimen volume and correct procedural technique.

Control standards are not supplied with this kit; however, it is recommended that positive and negative controls be tested as a good laboratory practice to confirm the test procedure and to verify proper test performance.

LIMITATIONS

The Zearalenone Strip Test Kit is a useful tool offering a rapid and accurate screening test, especially for on-site mycotoxins testing. It provides a quick on-site detection method to detect Zearalenone in grains, feed, etc. If you want a quantitative result, it is suggested to apply other method such as ELISA or HPLC in practice.

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