

Aflatoxin B1 Screen Test

Cat. No.:DTS438

Pkg.Size:

Intended use

CD Aflatoxin B1 Screen Test is a competitive immunoassay for screening of the presence of Aflatoxin B1 in grain or feed.

General Description

Aflatoxins are naturally occurring mycotoxins that are produced by many species of *Aspergillus*, a fungus, the most notable ones being *Aspergillus flavus* and *Aspergillus parasiticus*. Aflatoxins are toxic and among the most carcinogenic substances known. After entering the body, aflatoxins may be metabolized by the liver to a reactive epoxide intermediate or hydroxylated to become the less harmful aflatoxin M1.

Principle Of The Test

CD Aflatoxin B1 Screen Test is based on competitive lateral flow immunochromatographic assay. The Aflatoxin B1 conjugate in the test zone will capture the immuno-gold (colloid gold-AFB1 antibody conjugate), when there is very little dissociative AFB1 in the extraction. A visible red test band indicates a negative result when the control band (C zone) shows that the card is valid. The test band (T zone) will be not visible if AFB1 is present in concentration of the cut-off value and above which explains a positive result.

Reagents And Materials Provided

10×foil pouches each contains one AFB1 cassette with a pipette and a desiccant
1×assay diluent (8 mL)
10×centrifugal tubes
10×pipette tips
10×sampling tube (5 mL)
Product Manual

Storage

The kit can be stored at room temperature (2-30°C). The test kit is stable through the expiration date (18 months) marked on the foil pouch. DO NOT FREEZE. Do not store the test kit in direct sunlight.

Assay Procedure

- 1.Suck 0.3 mL of the assay buffer and add into a centrifugal tube.
- 2.Grind a representative sample to the particle size of fine instant coffee (50% passes through a 20 mesh screen). Weigh out 2.0 g ground portion of the sample into the sampling tube (5 mL).
- 3.Add 3 mL of 55% (v/v) methanol solution into the sampling tube. Shake sufficiently for 5 minutes.
- 4.Standing for a while. According to the required MRLs in below table, specify the volume of the clean supernatant liquid into the centrifugal tube containing 0.3 mL assay buffer. And then mix well.

Cut-off (ppb) 20 30 50 100

Supernatant (μL) 100 60 35 15

5. Take out the cassette from the foil pouch and place it horizontally.
6. Suck the liquid and drop 3 drops into the assay sample hole "S".
7. Interpret the result in 5-10 minutes. Result after 10 minutes is considered as invalid.

Interpretation of Results

Positive: Only one clear band in C zone indicates a positive result. The concentration of Aflatoxin B1 will be determined by the amount of assay diluent added as per table.

Negative: The presence of both bands in C zone and T zone.

Invalid: No band appears in C zone.

Detection Limit

20 ppb

Precautions

For best results, please strictly adhere to these instructions.

All reagents must be at room temperature before running the assay.

Do not remove test cassette from its pouch until immediately before use.

Do not reuse the test kit.

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.

Limitations

CD Aflatoxin B1 Rapid Test is a useful tool offering a rapid screening in field inspection, exceeding with its convenience. It provides a rapid method to detect Aflatoxin B1 above 20 ppb in grain or feed in totally 10 minutes only. If you want a quantitative result, please adopt other methods such as ELISA/HPLC in practice.