

Aflatoxin B1 Precise Test (Edible Oil)

Cat. No.:DTS478

Pkg.Size:

Intended use

CD Aflatoxin B1 Precise Test is a competitive immunoassay for the semi-quantitative detection of the presence of Aflatoxin B1 in edible oil.

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 Precise 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 containing one AFB1 cassette with a pipette and a desiccant
1×assay diluent (50 mL)
2×centrifugal tubes (15 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.Weigh out 2.0 g of the edible oil in a beaker. Add 8 mL of hexane into the beaker and transfer the mixture into a centrifugal tube (15 mL).
 - 2.Add 4 mL of distilled water into the tube and shake for 3 min. Get rid of the supernatant hexane layer.
 - 3.Add 4 mL of ethyl acetate into the tube and cover the lid. Shake for 5 min. (If emulsification appears, do a centrifugation at 4000rpm for 1 min.)
 - 4.Collect accurately 2 mL of supernatant (ethyl acetate layer) into a small container (beaker or tube). Dry the liquid by blowing wind.
 - 5.Redissolve the residues in the small beaker with an amount of the provided assay diluent.
- Cut-off (ppb) 5 10 20 50 100

Assay Diluents (mL) 0.6 1.2 2.4 6.0 12.0

6. Take out the cassette from the foil pouch and place it horizontally.

7. Suck the liquid and drop 4-5 drops into the assay sample hole "S"

8. 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

5 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 Precise Test is an useful tool offering a rapid and accurate testing in field screening, exceeding with its convenience. It provides a semi-quantitative method to detect Aflatoxin B1 above 5 ppb in edible oil. If you want a quantitative result, please adopt other method such as ELISA/HPLC in practice.