EZtest™ Afla Total Strip for Quantitative Detection of Total Aflatoxin (Peanuts)

(Aflatoxin is a class I carcinogenic substance)

EZtest™ Strip-103P MANUAL

(v. 1.00)
INTRODUCTION

Aflatoxins are toxic and carcinogenic. They are metabolites of the fungi *Aspergillus flavus* and *Aspergillus parasiticus*. There are four principle types of aflatoxin: B₁, B₂, G₁ and G₂, which are named for their respective innate fluorescent properties. Aflatoxin B₁ is the most frequently encountered of the group and the most toxic. Aflatoxin B₁ is the most potent liver cancer-forming chemical known. It is a product of a mold called *Aspergillus flavus*, which is found in food that has been stored in a hot and humid environment. This mold is found in such foods as peanuts, rice, soybeans, corn, and wheat.

1 INTENDED USE

EZtest™ Afla Total strip is lateral flow immunochromatographic assay based on a competitive immunoassay format. With EZtest™ Stripreader, it measures 2.5ppb-25ppb of total aflatoxin B₁, B₂, G₁ and G₂ in peanut.

2 KIT CONTENTS

1)  EZtest™ Afla Total strips (25/pk)
2)  Dilution buffer (10ml)
3)  1.5ml Strip Test Vial (50)
4)  1ml Pipette Tip (25)
5)  200µl Pipette Tip (50)
6)  Calibration RFID card
7)  Manual

Materials required but not provided:

1)  200 and 1000µl precision micropipette
2)  EZtest™ Stripreader (with ZERO card)
3)  Vortex mixer
4)  Multi-purpose rotary mixer
5)  Timer
6) Incubator (37°C)
7) Weigh scale
8) Distilled water or pure water
9) Extraction solution: Methanol+Water(70+30)
10) Funnel
11) Filter paper
12) 50mL Extraction tube

3 PREPARATION
1) Store test kits at 4~8°C (39~42°F) when not in use, and do not use beyond the expiration date.
2) Keep from moisture, and do not use the damaged and damp kits.
3) All reagents must be at room temperature before assay is running.
4) Do not re-use test strips.
5) Avoid swallowing the desiccant.

4 SAMPLE PREPARATION
1) Grind samples of peanut to pass a 20 mesh sieve and thoroughly mix prior to sub-sampling. Samples not being immediately analyzed should be stored refrigerated.
2) Weigh 5.0 g ground sample and transfer to a 50mL Extraction tube.
3) Add 25 mL of 70% Methanol/water to the Extraction tube.
4) Mix it with rotary mixer for 5 minutes.
5) Filter 1-5 mL through a paper filter and transfer 100µl of extract to a 1.5ml Strip Test Vial.
6) Dilute 100µl of extract with 400µl of dilution buffer, and mix thoroughly with vortex mixer for 10 seconds.

5 TEST PROCEDURE
1) Please read the manual carefully before assay is running.
2) All reagents and kit components must be at room temperature 18-30°C (64-86°F) before use.
3) Calibrate zero for EZtest™ Stripreader with ZERO card.
4) Calibrate EZtest™ Stripreader with RFID card.
5) Remove strip sealer, and take out the test strip on a flat surface (such as a countertop).
6) Add 100μl of the sample extracts to the circular opening of strip.

7) Put the test strip in Incubator (37 °C) to develop color for 10 minutes.

8) Put the test strip into the EZtest™ Stripreader, and the result can be read immediately.

6 INTERPRETATIONS OF THE RESULTS

1) Test range: 2.5ppb-25ppb.

2) If there is no line in control zone, the test is invalid and the sample should be re-tested by using a valid test strip.

7 Contact Information

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