

تمقیقاتی مواد شیمیایی و مولکولاربیولوژی

# Aflatoxin M1 (in Milk) Screening Test (Rapid Test for detection of Afla M1 in Milk)

#### INTENDED USE

Quicking Aflatoxin M1 Screening Test is used to detect aflatoxin M1 in raw milk or commingle milk at the level of 5ppb and above.

#### **PRINCIPLE**

Quicking Aflatoxin M1 Screening Test is based on competitive lateral flow immonuchromatographic assay. The Aflatoxin M1-BSA conjugate in the test zone will capture the immuno-gold (colloid gold-aflatoxin M1 antibody conjugate), when there is very little dissociative aflatoxin M1 in the samples. A visible red test band indicates a negative result when the control line (C zone) shows that the card is valid. The test band (T zone) will be not visible if aflatoxin M1 is present in concentration of 5 ppb\* and above which explains a positive result.

\*Different detection concentrations can be designed according to your need.

#### MATERIALS PROVIDED

- 10 aluminum foil pouches each containing Aflatoxin M1 test card with a dropper and a desiccant
- 10 centrifugal tubes for use
- One instruction for use
- \*NOTE: Please prepare a centrifuge (Rev: 3000-8000 rpm) by yourself or buy from us
- . Result after 20 minutes is considered as invalid.

# SAMPLES PREPARATION

- 1) Collect raw milk or commingle milk and mark the samples. The samples should be at 20-30°C before running the assay. Low temperature would drop the flow property and not fit for lateral flow detection.
- 2) Suck 1 mL of raw milk and drop into an centrifugal tube. Set in an centrifuge and centrifugate in 7000 rpm for 3-4min. You can see the apparent fat layer on the surface up the tube.
- 3) Insert another sucker through the fat layer about 5 mm below. Extract some defatted milk for testing.

#### TEST PROCEDURE

- 1) Please carefully read the instruction prior to testing. Bring all the reagents to room temperature before use.
- 2) Remove the test card from the foil pouch. Place it horizontally on the table. Please use it soon in one hour.
- 3) Drop 2-3 drops of the specimen into the sample hole ("S") and start to time. Let the solution flow laterally towards the other end
- 4) Read the result in 12-15 minutes. Result after 20 minutes is considered as invalid.

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## INTERPRETATION OF RESULTS:

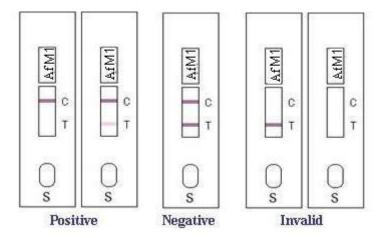
## Positive:

The presence of only one clear band in zone "C" indicates a positive result. If a vague T band can be seen but apparently weaker than C band, we also consider it as a positive result. Positive shows that the content of aflatoxin M1 is above 5 ppb (ng/mL) in the samples

## Negative:

The presence of both clear band in zone "C" and zone "T" (T band is close to or darker than C band) indicates a negative result.

Invalid: No colored band appears in C zone



# **SPECIFICITY**

The results are negative when the test card is applied to detecting 100  $\mu g/mL$  of beta-lactams, chloramphenicols, tetracyclines, aminoglycosides, macrolides, and sulfanilamides.

## PRECAUTIONS:

- 1) For best results, please strict adherence to these instructions is required.
- 2) All specimens should be handled as being potentially poisonous.
- 3) Do not open or remove test kit from their individually sealed pouches until immediately before their use
- 4) Do not reuse test kit.
- 5) All reagents must be at room temperature before running the assav.
- 6) Do not use reagents beyond the stated expiration date marked on the package label.
- 7) The components in this kit have been quality control tested as standard batch unit. Do not mix components from different lot numbers.

## **STORAGE**

The kit can be stored at room temperature (4-30°C). The test kit is stable through the expiration date (18 months) marked on the package label. DO NOT FREEZE. Do not store the test kit in direct sunlight.

# LIMITATION

Quicking Aflatoxin M1 Screening Test is a useful tool offering a rapid and accurate testing in field detection, exceeding with its convenience, which ensure an better quality control in the upstream of milk production. The result is usually considered as a judgement in the upstream screening. Please adopt other methods such as HPLC in the downstream quality control.