

Vomitoxin/Deoxynivalenol (DON) rapid test card

INSTRUCTION MANUAL

FOR PRODUCT No: LT-48002AYSLS



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MANUAL VERSION 1.02

INTRODUCTION

This product is based on competitive inhibition of colloidal gold immuno-chromatography principle and is used for testing Deoxynivalenol(DON) residue in grain, feed and edible oil sample etc.

TECHNICAL INDICATOR

Sensitivity: 50ppb (ng/ml)

Detection limit= Sensitivity* Sample dilution factor

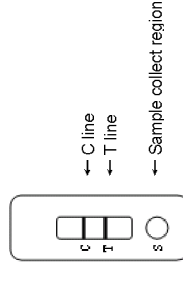
Detection limit:

Grain, feed: 500ppb

Edible oil: 250ppb

PRINCIPLE

The Deoxynivalenol rapid test strip is an immuno-chromatographic test, using colloidal gold immunoassay method. It relies on the competition between Deoxynivalenol residues in the sample and the Deoxynivalenol on T line, to the limited amount of dye-antibody. As a sufficient amount of drug in the sample is presenting, the drug will saturate the antibody. Consequently, it will show an extremely light or even invisible T line, indicating a positive result. On the other hand, if there is a negative sample (or the amount of the drug is lower than the minimum detectable concentration), it will generate two obvious lines in both the T and C line section.



CONTENTS

- 1) DON Test card 50 pieces
- 2) Manual 1 piece

MATERIALS REQUIRED BUT NOT PROVIDED

Instrument: homogenizer, oscillator, centrifuge, scale pipette, balance (0.01g)

Micro-pipettes: Single channel 20µl-200µl, 100µl-1000µl

Reagent: n-hexane

SAMPLE PREPARATION

Note: The experimental apparatus must be clean. Always use disposable tips to avoid contamination.

SAMPLE TREATMENT PROCEDURE

Grain, feed

- 1) Weigh 1g crushed sample into 50ml centrifuge tube, add 10ml deionized water, shake for 5min, Centrifuge at 4000r/min at room temperature for 10min;
- 2) Take 60ul top-layer clear liquid for test.

Sample Dilution factor: 10 Detection limit: 500ppb

Dilution method for different detection limit

Crushed sample	1g	1g	1g	1g
Deionized water	5ml	10ml	20ml	40ml
Dilution factor	5	10	20	40
Detection limit	250ppb	500ppb	1ppm	2ppm

(Note: If sample need to be diluted at 40 times, one may add 20ml deionized water, shake and centrifuge firstly, then take 1ml top-layer liquid and add 1ml deionized water to dilute)

Edible oil (vegetable oil, sesame oil, salad oil, peanut oil, etc.)

- 1) Weigh 1g sample into 50ml centrifuge tube, add 4ml n-hexane and 5ml deionized water, shake for 5min, Centrifuge at 4000r/min at room temperature for 10min;
- 2) Remove top-layer liquid, take 60ul bottom-layer liquid for test.

Sample Dilution factor: 5 Detection limit: 250ppb

PROTOCOL

Take out the test card from Aluminum foil bag, put it on flat and clean desk.

Use dropper to drop **2-3 drops** of sample drop-by-drop and slowly (about 60 µl, avoid bubble) in the sample collect region vertically.

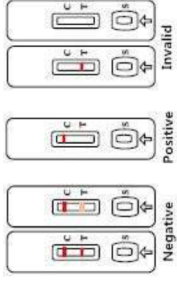
Wait for 8-10 min at room temperature to read the result. (Result beyond 10 minutes can be used as reference only)

TEST RESULT INTERPRETATION

Negative: Red T line appears. It means there is no Deoxynivalenol residue in sample or the residue is lower than detection limit.

Positive: Red T line is invisible. It means the Deoxynivalenol residue is higher than detection limit.

Invalidation: C line isn't seen wine red. It means the test card is out of efficacy, out of date or such a result is due to improper operation. Please run the test again using another package. If the invalid tests keep happening, please contact us.



PRECAUTIONS

- 1) Do not use test card out of expiry date and in broken package.
- 2) Return the test card to room temperature if store in cold before use, use the test card soon to avoid moisture after opening the package.
- 3) Do not touch the white membrane surface in the middle of test card.
- 4) Do not mix use the dropper to avoid cross contamination.
- 5) The sample liquid need to be clear with no turbid particles and no bacterial contamination, otherwise it will lead to blocking and color results will not be obvious etc., thus affecting the interpretation difficult.

10. STORAGE AND EXPIRY DATE

Storage: Store at 2-30 °C in dark, sealed, dry place, not to be frozen.

Expiry date: 12 months; date of production is on box.