

Melamine Residue Rapid Test Strip (Milk)

Prod. No.: DTS005
Pkg.Size: 40T

INTENDED USE

Melamine device is for rapid test to qualitatively detect the Melamine in milk sample at the sensitivity of 100 µg/kg. It only takes approx.5~ 8 min.

GENERAL DESCRIPTION

Melamine is an organic base and a trimer of cyanamide, with a 1,3,5-triazine skeleton. Like cyanamide, it contains 66% nitrogen by mass and, if mixed with resins, has fire retardant properties due to its release of nitrogen gas when burned or charred, and has several other industrial uses.

Melamine is used in combination with formaldehyde to produce melamine resin, a very durable thermosetting plastic, and melamine foam, a polymeric cleaning product. The end products containing melamine include countertops, fabrics, glues and flame retardants. Melamine is one of the major components in Pigment Yellow 150, a colorant in inks and plastics. Melamine is also used to make fertilizers.

PRINCIPLE OF THE TEST

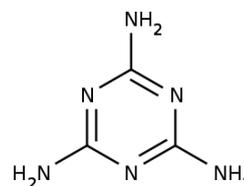
Competitive assays are primarily used for testing small molecules. If Melamine is present in the sample it will therefore bind with the conjugate and will be labelled. As the sample migrates along the membrane and reaches the capture zone an excess of labelled antibody will bind to the immobilised antigen so that no visible line is produced. The bound conjugate will then bind to the antibodies in the control zone producing a visible control line. A single control line on the membrane is a positive result. Two visible lines in the capture and control zones is a negative result. However, if an excess of unlabelled Melamine is not present, a weak line may be produced in the capture zone, indicating an inconclusive result.

REAGENTS AND MATERIALS PROVIDED

Melamine Residue Rapid Test Device: 40 devices
Product Introduction: 1 copy
Throwaway plastic dropper: 40 pieces per kit
Sample dilution tube(containing sample dilution solution)

STORAGE

Store at 15-25°C, DO NOT FREEZE or use beyond the expiration date. The shelf life is 12 months.



Melamine

PRECAUTIONS

1. Do not use after the expiration date.
2. The test device should remain in the sealed pouch until use.
3. Use device as soon as possible but within 1 hour after removal from the pouch specially.
4. Do not touch the white membrane in the mid of the test device.
5. Use the plastic dropper for one time in case cross reaction happens
6. It may lead into wrong result if there is bleach, oxydant, or fusty urine.
7. Do the test at room temperature. It takes longer time at high temperature, and shorter time at low temperature.
8. Different samples will influence the result on NC thecal. Read the result according to color differences of the color bar.
9. Be careful if you are allergic to antibiotics.

SPECIMEN TREATMENT

Add 0.6 ml fresh raw milk to the sample dilution tube, and mix the sample well.

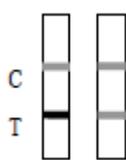
TEST PROCEDURE

1. Prepare samples according to **SPECIMEN TREATMENT**.
2. Remove the Residue Rapid Test Devices from sealed pouch.
3. Hold the dropper vertically and transfer 6-8 full drops of solution obtained from specimen treatment to the specimen well (S) of the test device, and then start the timer. Avoid trapping air bubbles in the specimen well (S).
4. Wait for purplish red bands to appear. The result should be read in approximately 5~8 minutes. It is significant that the background is clear before reading the test. Do not interpret results after 8 minutes.

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INTERPRETATION OF RESULTS



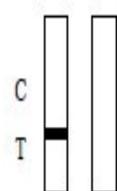
NEGATIVE:

Two lines are visible and the Test Line (T) is the same as or darker than the Control Line (C), which also is the Reference Line (R). This indicates that the Melamine concentration in sample is below 100 µg/kg.



POSITIVE:

No purplish red band appears in T line indicating that the concentration of Melamine is higher than 100 µg/kg.



INVALID:

Reference Line fails to appear. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for an invalid result. Review the procedure and repeat the test with a new test device. Stop using the test kit immediately if the problem is not solved and contact your local distributor.

SENSITIVITY

To acquire the exact sensitivity, reduplicative experiment has been done on the sample containing 100 µg/kg Melamine.

REFERENCE

1. Lori O. Lim, Susan J. Scherer, Kenneth D. Shuler, and John P. Toth. Disposition of Cyromazine in Plants under Environmental Conditions J. Agric. Food Chem. 1990, 38, 860–864.
2. Bann B. and Miller S.A. (1958) "Melamines and derivatives of melamine". Chemical Reviews, vol.58, 131–172.

QUALITY CONTROL

Procedural control is applied. A purplish red band appears in the control region (C), which is also the reference region (R) that is for internal procedure control. It ensures efficiency and correct procedure technique.

Control standard is not supplied in this device. Proper laboratory practice is the confirmation of the test procedure and test performance.

LIMITATION OF THE PROCEDURE

1. The Melamine Residue Rapid Test Device is only a preliminary analytical result. A secondary analytical method must be taken for confirmation. Gas or liquid chromatography and mass spectrometry method (GC/LC/MS) is preferred.
2. The Melamine Residue Rapid Test Device is a qualitative screening assay and cannot test the Melamine concentration in the specimen.
3. Technical or procedural errors, as well as other interfering substance in the specimen may cause falseness.

PRECISION

A multi-center test evaluation is conducted between the Melamine Residue Rapid Test Device and other products. 386 specimen is tested, including 206 negative and 180 positive. 98.5% of the Melamine Residue Rapid Test Device is effective when comparing to other ELISA Melamine reagents.