# Melamine Rapid Test Kit

**Catalog No.:** abx092011

**Size:** 50 tests

**Storage:** Store all reagents at 2-30°C. Keep dry.

**Application:** For qualitative detection in milk, raw milk, and feed.

## Introduction and assay principle

Abbexa's Melamine Rapid Test Kit is based on the gold immuno-chromatography assay (GICA) principle. Any Melamine present in the samples combines with the colloidal gold particle-labelled Melamine antibody. When the concentration of Melamine in the sample is more than the detection limit, there is no color change in the detection line and the result is positive. When the concentration of MEL in the sample solution is less than the detection limit, there is a color change in the detection line and the result is negative.

## Kit components

- Test cassettes (packaged in foil pouches containing disposable pipettes): 50
- Reconstitution Buffer: 2 × 30 ml

## Materials Required But Not Provided:

- Hydrochloric acid (HCl, 1 M)
- Sodium Hydroxide (NaOH, 1 M)
- Deionized water
- Centrifuge
- Multi and single channel pipettes and sterile pipette tips
- Mechanical homogenizer
- Vortex mixer
- Mortar and pestle
- Filter paper

## Sample preparation

- **Milk and raw milk:** Add milk sample into a clean and dry tube and centrifuge at 4000 RPM for 5 minutes. Remove the middle layer for analysis, adding 4-5 drops into the sample well. **Detection limit: 100 ppb.**

  If the sample does not reach the C line when testing, dilute the milk with deionized water in a ratio of 1:1 volume : volume. Add 4-5 drops into the sample well. Note that this dilution will change the detection limit of the test. **Detection limit: 200 ppb**

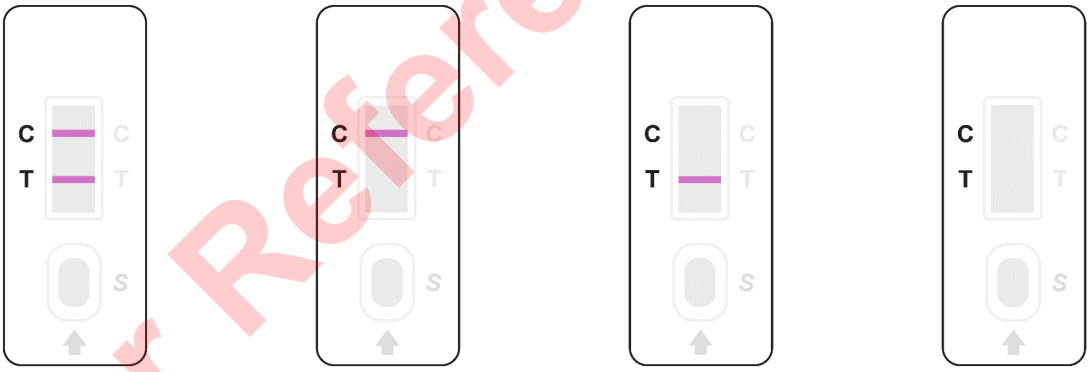
- **Feed:** Feed samples must be ground before use. Weigh 2 ± 0.05 g of ground feed sample and add into 2 ml of HCl (1 M). Homogenize using a manual homogenizer in 16 ml of deionized water. Vortex for 1 minute then shake/invert for 2 minutes. Centrifuge at 4000 RPM for 15 minutes. Take 10 ml of supernatant and adjust the pH to between 6-8 using NaOH (1 M). Centrifuge at 4000 RPM for 15 minutes then carefully take the supernatant. *If the supernatant is not clear, centrifuge further or filter using filter paper.* Dilute the supernatant 10-fold with Reconstitution Buffer (i.e. add 900 µl of Reconstitution Buffer to 100 µl of supernatant) and mix thoroughly. Add 4-5 drops into the sample well.
  **Detection limit: 1000 ppb**

### Assay procedure

1. Take a test cassette and lay it flat on a clean table. Add 4-5 drops (approximately 120 µl) of diluted sample to the sample well on the test cassette.
2. Leave at room temperature for 5 - 8 minutes, then analyze the result.

### Results analysis

- **Negative result:** A colored line is observed in both the control (C) section and the test (T) section.
- **Positive result**: A colored line is observed in the control (C) section but not the test (T) section.
- **Invalid result**: No colored line is observed in the control (C) section.




**Negative** **Positive** **Invalid** **Invalid**

## Notes

1. The test cassettes should be brought to room temperature before use.
2. After opening the aluminum foil, use the test cassette as soon as possible.
3. Samples should be clear with no visible particles, turbidity or bacterial pollution.
4. Do not mix or re-use the disposable pipettes to avoid cross-contamination.
5. Avoid touching the cassette membrane through the sample well or test result window.
6. This kit is for qualitative detection of Melamine in milk, raw milk, and feed samples. For other sample types, a preliminary experiment is recommended to determine compatibility with this kit. Positive samples can be tested with another method (e.g. HPLC, LC/MS) for quantitative results.
7. This kit is for research use only.