

Instructions for Use

Version: 1.0.2
Revision date: 13-Aug-24

Beta-lactamase Rapid Test Kit

Catalog No.: abx092181

Size: 20 tests / 40 tests / 80 tests

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

Application: For qualitative detection of Beta-lactamase in Milk samples.

Introduction and Assay Principle

Abbexa's Beta-lactamase Rapid Test Kit is based on the gold immuno-chromatography assay (GICA) principle. When the concentration of Beta-lactamase in the sample is more than the detection limit, there is a color change in the detection line and the result is positive. When the concentration of Beta-lactamase in the sample solution is less than the detection limit, there is no color change in the detection line and the result is negative.

Kit Components

- Test cassettes with pipettes and gold-labelled micro-wells
- 1.5 ml Tubes with Tablets

Material Required But Not Provided

- Timer
- Water bath

A. Sample preparation

- **Milk:** The temperature of the samples and test environment must be > 20°C during testing. For frozen milk samples, gently heat with a water bath or incubator until the liquid has thawed completely, and is at > 20°C. Mix periodically while heating to ensure the temperature is homogenous throughout the sample. For freshly prepared milk, allow the sample to stand for at least 2 hours before testing.

Take 1 ml of Milk sample and transfer to a 1.5 ml Tube with Tablet. Ensure the Tablet within is fully immersed in the sample, and then mix fully for 10 seconds. Leave the Tablet to incubate at room temperature for the required time. The time for which the Tablet should be incubated can be changed depending on the required sensitivity of the assay, according to the following table:

Assay Detection Limit (U)	Incubation Time (minutes)
3	30
5	20
10	10
20	5

After incubating, mix fully and take the resulting sample liquid for detection.

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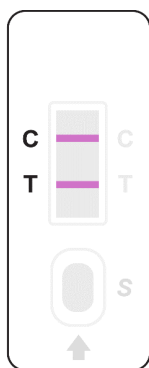
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B. Assay procedure

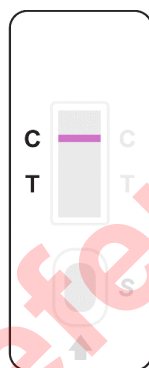
1. Take a test cassette and lay it flat on a clean table. Using the provided pipette, slowly and vertically add 7 drops (approximately 150 μ l) of prepared sample to the gold-labelled micro-well on the test cassette.
2. Leave the sample in the gold-labelled micro-well for 2 minutes at room temperature.
3. Using a pipette tip, mix any purple residue until it has fully dissolved. *Avoid foaming.*
4. Leave the sample in the gold-labelled micro-well for 2 minutes at room temperature.
5. Transfer all the liquid in the gold-labelled micro-well to the sample well.
6. Leave at room temperature for 10 – 15 minutes, then immediately analyze the result.

C. Results analysis

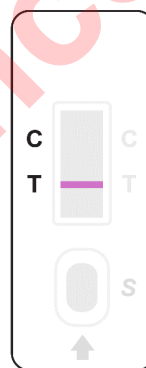
- **Positive result:** A colored line is observed in both the control (C) section and the test (T) section.
- **Negative result:** A colored line is observed in the control (C) section but not the test (T) section.
- **Invalid result:** No colored line is observed in the control (C) section.



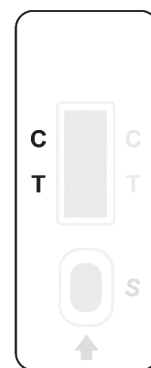
Positive



Negative



Invalid



Invalid

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Notes

1. The test cassettes should be brought to room temperature before use.
2. The temperature of the sample and test environment should be stable and > 20°C for the duration of the test.
3. After opening the aluminum foil, use the test cassette as soon as possible.
4. Samples should be clear with no visible particles, turbidity, or bacterial pollution.
5. Do not mix or re-use the disposable pipettes to avoid cross-contamination.
6. Do not use water, PBS, or similar solutions as the negative control.
7. Avoid touching the cassette membrane through the sample well or test result window.
8. This kit is for qualitative detection of Beta-lactamase in Milk 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.
9. This kit is for research use only and the results are for reference only.
10. All waste should be disposed appropriately. Please note that you may need to follow special waste disposal procedures for infectious samples. Please check local disposal regulations.

Technical Support

For troubleshooting and technical assistance, please contact us at support@abbexa.com.