MilkSafe™ 2BC antibiotic test

Rapid test for antibiotic residues in milk testing for Beta-lactams (including Cephalexin)

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Improving food & health

Contents

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Introduction

This rapid test is used for detecting antibiotic residues from Beta-lactams including Cephalexin and Ceftiofur, in milk based on the colloidal gold immunochromatography technology. Test time is 5 minutes.

Application

Raw commingled cow milk, pasteurized milk, full cream milk powder, goat and ewes milk.

Test kit components

- 6 canisters, each with 2 strips of 8 reagent microwells and 16 test strips
- 1 pipette (200µL), 100 pipette tips
- Positive and negative controls
- Product insert

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Storage

Store at 2-8°C. Do not freeze. Keep away from direct sunlight, moisture and heat.

Shelf Life

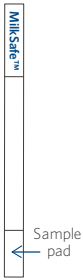
18 months from date of production when stored correctly.

Materials required but not provided

- Incubator capable of maintaining a temperature at 40 ± 2°C.
- MilkSafe™ Reader (optional)
- Plate holder, timer (optional)

Test preparation

1. Turn on the incubator and wait until the temperature has stabilized at 40°C±2°C.
2. Retrieve the test kit from the refrigerator and allow the canister to warm up to room temperature (15-30°C).
3. Take the required number of microwells and test strips from the canister.
4. Mix milk sample well to be homogeneous before testing.
5. If testing milk powder, please reconstitute the powder correctly and thoroughly (no clumps present) to original solids content and verify that final pH is 6.5-7.0, adjusting if necessary.



Test procedure

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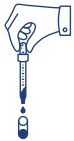
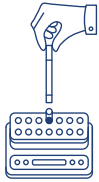
1. 

Pipette 200µL milk sample into the reagent microwell and mix well by pipetting up and down 5-10 times.

2. 

Insert the reagent microwell into the incubator and insert the test strip, with the sample pad facing downwards, into the microwell. Incubate 5 minutes at 40±2°C.

3. 

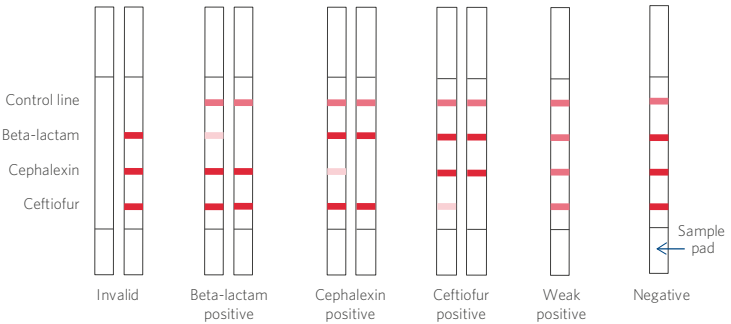
Remove the test strip from the microwell, remove the sample pad at the lower end by scraping off the pad, and interpret the result visually or by reader immediately. For more information about interpretation see next page.

Test interpretation

Visual interpretation

Check whether the top control line (C line) is present. If there is a normal C line, compare the color intensity of each test line (T line) to the C line and interpret the test based on the following chart. If there is no visible C line, the test is judged as invalid.

Figure 1: Interpretation diagram



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- Negative: All test lines are stronger than the control line.
- Positive: Any test line is weaker than the control line.
- Weak Positive: Any test line is the same as the control line.
- Invalid: No control line is present.

Interpretation by reader

Please refer to the relevant reader user manual.

Negative and positive controls reconstitution

Note

After reconstituting, use the negative and positive samples as a milk sample: transfer 200µL to a reagent microwell and proceed to test as described in the Test procedure section.

Test preparation for the Negative control

1. Turn on the incubator and wait until the temperature has stabilized at 40°C±2°C.
2. Retrieve the test kit from the refrigerator and allow the negative control and the canister to warm up to room temperature (15-30°C).
3. Open the negative control kit and, in addition, take one microwell and one test strip from the canister.
4. Add **200µL distilled water** into the microwell from the negative control kit and mix well to be homogeneous before testing. The reconstituted sample is now ready for use.

Test procedure for the Negative control

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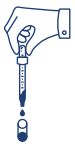
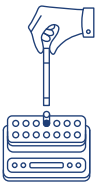


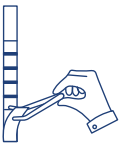
Pipette 200µL of the **reconstituted negative sample** into the test reagent microwell and mix well by pipetting up and down 5-10 times.

2



Insert the reagent microwell into the incubator and insert the test strip, with the sample pad facing downwards, into the microwell. Incubate 5 minutes at 40±2°C.

3



Remove the test strip from the microwell, remove the sample pad at the lower end by scraping off the pad, and interpret the result visually or by reader immediately. For more information about interpretation see page 6.

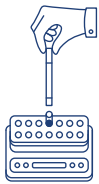
Test preparation for the Positive control

1. Turn on the incubator and wait until the temperature has stabilized at 40°C±2°C.
2. Retrieve the test kit from the refrigerator and allow the positive control and the canister to warm up to room temperature (15-30°C).
3. Open the positive control kit and, in addition, take one microwell and one test strip from the canister.
4. Add **200µL negative milk** into the microwell from the positive control kit and mix well to be homogeneous before testing. The reconstituted sample is now ready for use.

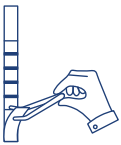
Test procedure for the Positive control

1. 

Pipette 200µL of the **reconstituted positive sample** into the test reagent microwell and mix well by pipetting up and down 5-10 times.

2. 

Insert the reagent microwell into the incubator and insert the test strip, with the sample pad facing downwards, into the microwell. Incubate 5 minutes at 40±2°C.

3. 

Remove the test strip from the microwell, remove the sample pad at the lower end by scraping off the pad, and interpret the result visually or by reader immediately. For more information about interpretation see page 6.

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Precautions

- Please only handle tests with clean hands to avoid any contamination of the test strips as those are very sensitive to antibacterial substances.
- The milk sample must be homogeneous and without signs of clotting or sedimentation. The ideal sample temperature is 20-25°C.
- Use a new pipette tip for every new sample.
- Do not use reagent microwells and test strips from different lots together.
- Do not use kits after the expiration date.
- Do not remove the lid of a reagent microwell before usage, as the reagent is sensitive to air and moisture.
- The tube with microwells and test strips should always be well closed after reagents have been taken out to avoid moisture building up inside the tube. We recommend using the test strips from one canister at the time.
- Handle the test strips by the upper end. Do not touch the lower end (sample pad and membrane areas), as this may affect the performance of the test strips.
- After the incubation, the result should be interpreted within 5 minutes.
- If the fat content in the sample is high, the test strip chromatography speed will be lower. It is recommended to extend the incubation by 60 seconds in this condition.
- When a positive result is identified, repeat the test to confirm the validity of the result.
- If one or more lines on the test strip are not continuous across the test strip, we recommend repeating the test.

Limit of detection

For information about the detection limits go to Chr. Hansen Store on https://store.chr-hansen.com and download the Product Information sheet for the test kit in question or contact your local sales representative.

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Contact your local Chr. Hansen representative to learn more about how we can work together to find the perfect solution for you.

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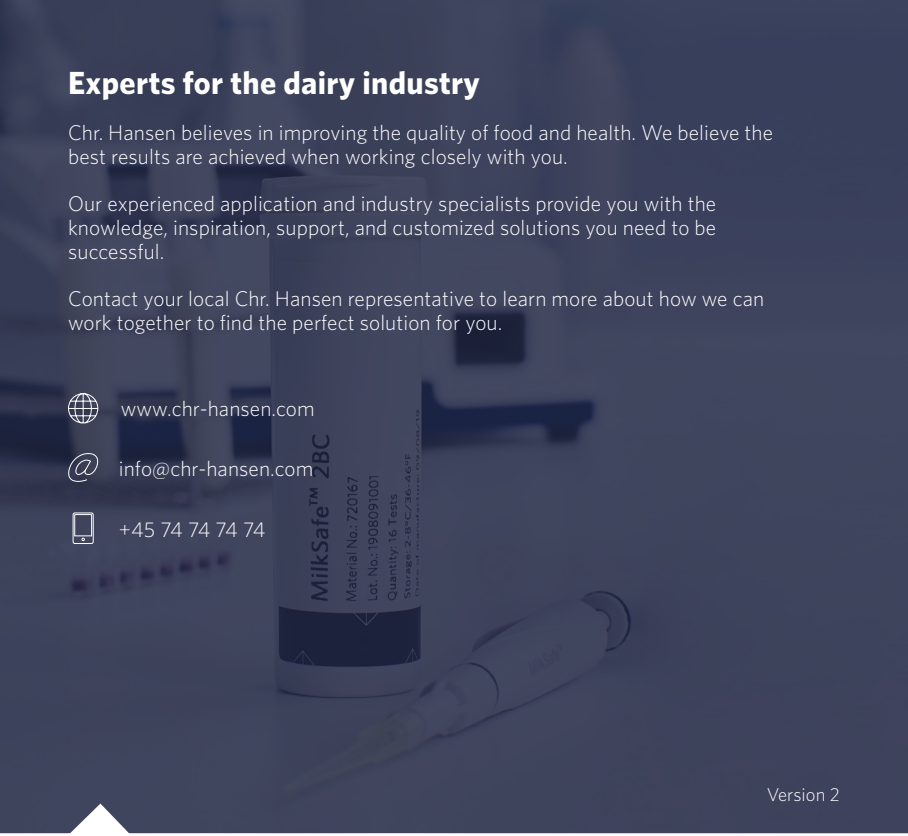

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