SOMATICSCAN KIT 200

Contents :

- ✓ 50 pcs. SOMATICCHIP x4

- ✓ 200 pcs test tubes with lyophilized dye

- ✓ 400 pcs pipette tips for automatic pipette

(*The consumables are for single use only*)

Preparation for analysis:

- Raw milk
- Sample container
- Automatic pipette
- Pipette tip for automatic pipette
- Vortex mixer
- Test tube with lyophilized dye
- Somaticchip

The accuracy of the measurement depends on the proper preparation of the sample and thorough mixing. It is mandatory to use raw milk, which can be either freshly milked or raw preserved at room temperature (15-25°C) – minimum 30 mL.

The analysis should be performed within 4-5 hours after milking if the samples are not preserved. Freshly milked milk does not need to be tempered.

Preserved and refrigerated milk samples are suitable for measurement for no more than 5-6 days.

To preserve raw milk samples, potassium dichromate ($K_2Cr_2O_7$) or bronopol ($C_3H_6BrNO_4$) should be used in the quantities specified in the standard sampling procedures for analysis. The samples can then be stored in a refrigerator at 4°C.

Before measurement, milk samples should be heated to 40°C and then cooled to 20°C. After that, they must be thoroughly mixed using a Vortex mixer to prevent measurement variations.

The milk sample should not fill the container to the lid (no more than 50 mL) to allow easier mixing with the Vortex mixer.

Raw or preserved milk with acidity above the following levels cannot be used for analysis:

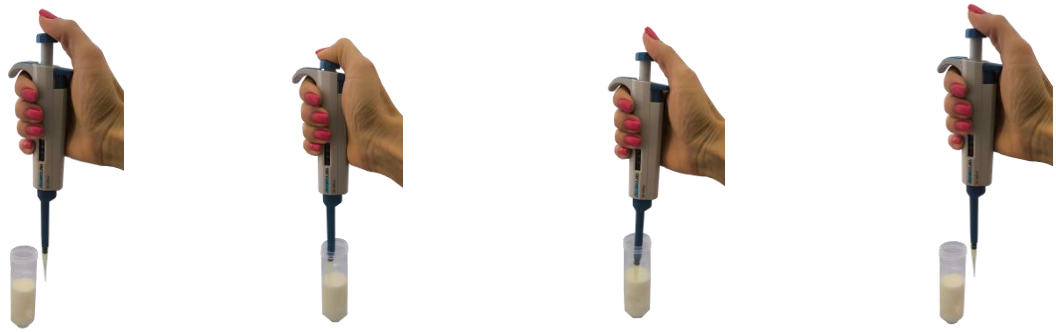
- 22°T for sheep milk
- 18°T for cow milk
- 17°T for buffalo milk
- 16°T for goat milk

Using the Vortex mixer, mix the container with the raw milk sample as follows:

Place the tip of the container into the mixer opening. Press and hold for 1-2 seconds. Repeat 3-4 times, ensuring the sample does not reach the container lid during mixing.

Pipetting raw milk into a test tube with lyophilized dye :

- Take a test tube with lyophilized dye, open it, and place it on the stand.
- Set the automatic pipette to 100 µL.
- Ensure the pipette tip is clean and uncontaminated.
- Hold the pipette vertically above a tip from the pre-arranged ones on the stand.
- Gently press the pipette cone into the tip opening to secure it.
- Hold the pipette over the open test tube with lyophilized dye.
- Press the button smoothly to the first stop to dispense the milk.
- After a brief pause, press the button to the second stop to fully empty the tip.
- Ensure the milk is dispensed without touching the tip to the lyophilized dye.



- Hold the pipette over the open test tube with lyophilized dye.
- Press the button smoothly to the first stop to dispense the milk.
- After a brief pause, press the button to the second stop to fully empty the tip.
- Ensure the milk is dispensed without touching the tip to the lyophilized dye.

Mixing the sample:

- After adding the milk sample to the test tube with lyophilized dye, securely close the tube.
- Mix Using a Vortex Mixer
- Press and hold the tube's tip against the Vortex mixer for 1-2 seconds, then release.
- Repeat 8-9 times, ensuring the solution does not reach the tube cap

The milk sample needs 1 minute to interact with the dye. If the interaction time is less than 1 minute or more than 20 minutes, the analysis result may vary by 2-3%.If more than 5 minutes have passed after adding milk to the test tube before filling the Somatic Chip, the sample must be mixed again.

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Pipetting 10 µL of sample into the Somaticchip chamber :

Do not touch the top surface of the SomaticChip . Hold it by the side edges to prevent contamination.. Dust or other contaminants may cause false results in the analysis

- Use a pre-set automatic pipette set to 10 µL.
- Ensure the pipette tip is clean and uncontaminated.
- Hold the pipette vertically over a new pipette tip from the stand and gently press to secure it.
- Open the test tube.
- Use the automatic pipette to draw exactly 10 µL of the sample.
- Ensure the pipette tip is properly filled without air bubbles.

Hold the pipette at an approximately 80° angle relative to the semi-circular loading port on the letter-marked side of the microfluidic chambers. Gently press the pipette button from the initial position to the first stop. Hold the button at the first stop and carefully withdraw the pipette tip from the Somaticchip. Slowly release the button back to the starting position. Do not use the second stop, as this may introduce air bubbles into the microfluidic chamber. Repeat these steps for each chamber..

It is recommended to place the loaded Somaticchip into the device and start the analysis within 20–60 seconds. Delayed analysis can lead to inaccurate results due to sample evaporation and air intrusion

Storage conditions:

The Somaticscan KIT should be stored at a temperature between -10°C and +40°C. Keep the kit protected from direct sunlight.