

Instructions for Use

Version: 1.0.3
Revision date: 26-Jun-23

Malachite Green Rapid Test Kit

Catalog No.: abx092041

Size: 20 tests

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

Detection limit: Muscle, water samples – 1 ng/ml (ppb)

Application: For qualitative detection of Malachite Green in muscle and water samples.

Introduction and assay principle

Abbexa's Malachite Green Rapid Test Kit is based on the gold immuno-chromatography assay (GICA) principle. Any Malachite Green present in the samples combines with the colloidal gold particle-labelled Malachite Green antibody. When the concentration of Malachite Green 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 Malachite Green 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	Material Required But Not Provided	Reagents Required But Not Provided
<ul style="list-style-type: none"> • Test cassettes with pipettes: 20 • Extraction Buffer: 2 vials • Assay Buffer: 2 vials • Oxidizing Reagent: 2 vials • Sample diluent: 2 vials 	<ul style="list-style-type: none"> • High-precision pipette and sterile pipette tips • Vortex • Water bath/Nitrogen evaporator • Timer 	<ul style="list-style-type: none"> • Acetonitrile • N-hexane

Sample preparation

- **Water sample:** Add 60 µl of Sample Diluent to 60 µl of sample and mix fully.
- **Muscle samples (fish, shrimp):** Remove skin, bone and fat from the sample. Homogenize with a homogenizer. Weigh 4 g of homogenate into a centrifuge tube. Add 2 ml of Assay Buffer and vortex for 2 minutes. Add 150 µl of Extraction Buffer, 4 ml of Acetonitrile and 2 ml of N-hexane, and vortex for 2 minutes. Centrifuge at 4000 rpm for 5 minutes at room temperature. Take 2 ml of the **middle layer** (*the top layer supernatant should not be taken*) to a new centrifuge tube. Add 100 µl of Oxidizing Reagent, vortex for 30 seconds, and dry in nitrogen evaporators or a 65°C water bath. Dry in a ventilated environment. Add 300 µl of Sample diluent to dissolve the dried mixture fully. Take 120 µl of the sample for analysis.

Assay procedure

1. Take a test cassette and lay it flat on a clean table. Using the provided pipette, slowly and vertically add 5-6 drops (approximately 120 µl) of sample to the sample well on the test cassette.
2. Wait for 2 minutes. A purple precipitate may form. Mix the sample in the sample well with the

Instructions for Use

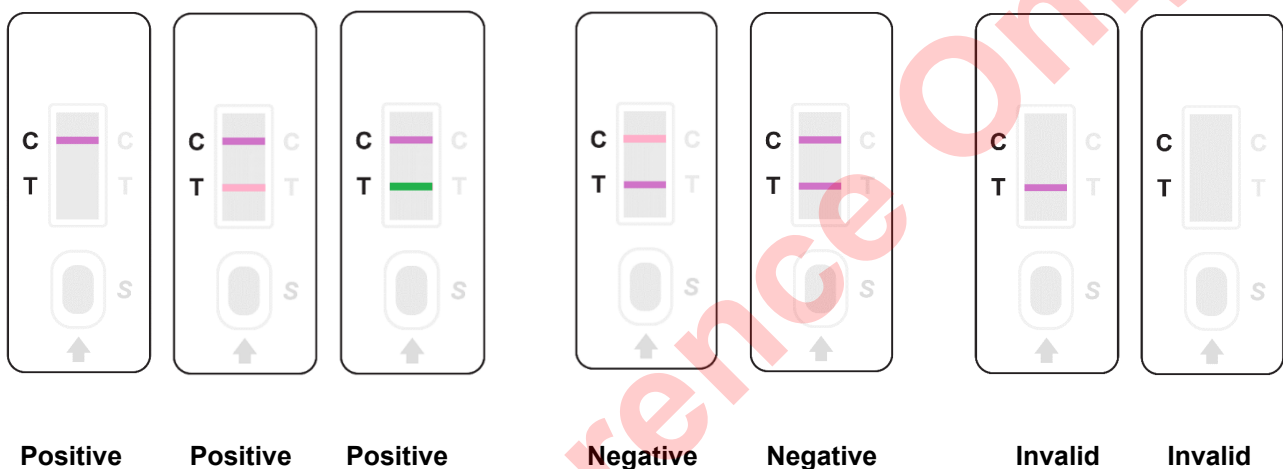
Version: 1.0.3

Revision date: 26-Jun-23

- disposable dropper until the purple precipitate dissolves. Avoid foaming.
3. Wait for 2 minutes, then remove all of the liquid in the sample well and begin the timer.
4. Leave at room temperature for 5-8 min, then analyze the result.

Results analysis

- **Positive result:** A colored line is observed in the control (C) section and the test (T) section shows no line, a lighter colour than the control section, or turns green after an additional 5 minutes.
- **Negative result:** A colored line is observed in the control (C) section, and the test (T) section shows an equal or darker line than the control section.
- **Invalid result:** No colored line is observed in the control (C) section.



- A negative result indicates that there is no Malachite Green present in the sample, or the concentration is below the detection limit.
- A positive result indicates Malachite Green is present in the sample.

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. Do not use water, PBS, or similar solutions as the negative control.
6. Avoid touching the cassette membrane through the sample well or test result window.
7. This kit is for qualitative detection of Malachite Green in muscle or water 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.
8. This kit is for research use only and the results are for reference only. It is recommended to use this kit in conjunction with another detection method.
9. 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.