

# Elabscience®

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**(FOR RESEARCH USE ONLY. DO NOT USE IT IN CLINICAL DIAGNOSIS !)**

## **MG (Malachite Green) Rapid Test Kit**

Catalog No: E-FS-C007

10T/20T

This manual must be read attentively and completely before using this product.

If you have any problems, please contact our Technical Service Center for help.

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Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

### Test principle and application

This kit uses the principle of competitive-inhibition-GICA. It can detect MG (Malachite Green), in samples, such as tissue (fish, prawn), water sample, etc. After adding the sample solution into the gold-labelled micro well of detect card, MG of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with MG conjugate on the cellulose membrane.

### Technical indicator

**Sensitivity:** Malachite Green (dominant) ---1 ppb

Malachite Green (recessive) ---2 ppb

### Kits components

Item	20T/KIT	10T/KIT
Detect card (contains gold-labelled micro well)	20T/kit	10T/kit
Extractant 1	1 vial	1 vial
Extractant 2	20 vials	10 vials
Oxidizer	1 vial	1 vial
Sample reconstituted solution	1 vial	1 vial
Manual	1 copy	1 copy

### Other supplies required

**Instruments:** Homogenizer, Nitrogen blow-dry device, Oscillators, Centrifuge, Graduated pipette, Balance (sensitivity 0.01g)

**High-precision transfer pipette:** Single channel (20-200  $\mu$ L, 100-1000  $\mu$ L)

**Reagent:** Acetonitrile.

### Sample pretreatment:

**Notice:** Experimental apparatus should be clean, and the pipette should be disposable to avoid the experiment result being interfered by the contamination.

1. **Pretreatment of water sample:**

Mix 60  $\mu$ L water sample with 60  $\mu$ L reconstituted solution for test.

2. **Pretreatment of tissue (Remove heads and shells of prawns and fish needs to be scraped the scales off):**

(1) Weigh 3  $\pm$  0.1 g of homogenized sample without fat into 15 mL EP tube.

(2) Add 4 mL Extractant 1 and 4 mL acetonitrile, screw the top of the tube, shake vigorously for 3 min.

(3) Add a vial of Extractant 2, screw the top of the tube, shake vigorously for 3 min, centrifuge at 4000 r/min for 5 min at room temperature.

(4) Remove 1.2 mL-1.5 mL of clear upper liquid (liquid at the middle is not allowed to be sucked) to a

glass tube, add 100 uL of oxidizer, oscillate well and blow-dry in nitrogen or air at 50-60°C; (It is considered as a normal phenomenon if liquid residues at the bottom less than 100 uL, add reconstituted solution directly, the result is guaranteed)

- (5) Add 300 uL reconstituted solution into the glass tube to dissolve the dry residual. Oscillate well for analysis.

### Experiment procedure

1. Tear the aluminum foil bag of the detect card and take out the detect card, and put it on a smooth, clean table.
2. Take the prepared clear sample supernatant with the matching straw, add 120 uL of sample to the gold-labelled micro well (S), wait for 2 min, whip the purple residual with a burette until it is completely dissolved, wait for 2 min again, remove all the liquid of the gold-labelled micro well into the sample well, count down at the same time.
3. Keep the detect card at room temperature for 8-10 min, then judge the result. The result can only be considered as a reference if lasts for more than 10 min.

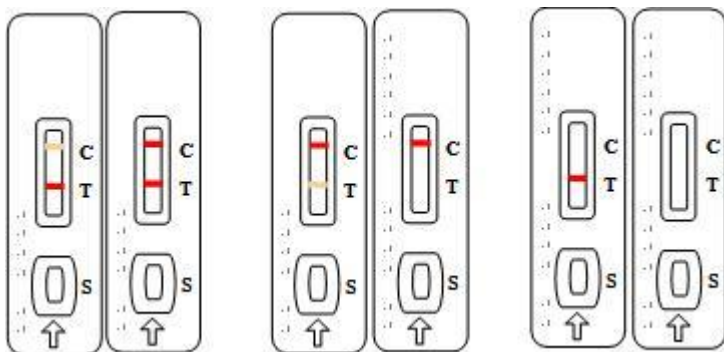
### Judgment of result

Negative: the test line region (T) and the control line region (C) shows a purple line at the same time (or the color of the test line region (T) is darker than the control line region (C) in the observation well.

It indicates the content of MG in the sample is lower than 2 ppb or the sample doesn't contain MG.

Positive: only the control line region (C) shows a purple line in the observation well, the test line region (T) shows no color or lighter than the control line region (C) (Remark: if the line (T) shows green 5 min later, it means also positive). It indicates the content of MG in the sample is higher than 2 ppb.

Invalid: the control line region (C) does not show a purple line in the observation well.



Negative Positive Invalid

## **Notes**

1. Do not use product out of date or in a broken aluminum foil.
2. The detect card should be adjusted to room temperature after removed from the refrigerator before opening. The opening detect card should be used as soon as possible so as not to be invalid because of moisture.
3. Avoid of contacting the whitemembrane at the middle of the sample well.
4. The droplets cannot be mixing to avoid the cross-contaminant.
5. The tested sample should be clear, no turbidity particle and no bacterial pollution, otherwise it is easy to result in abnormal phenomena such as obstruction, unobvious color, etc., which affect the judgment of the experiment result.

## **Storage and valid period**

**Storage:** Store at 2-30°C withdry condition.

**Valid Period:** 1 year, production date is on the packing box.