8th Edition, revised in February, 2018

AHD (Aminohydantoin Hydrochloride) Lateral Flow Assay kit

Catalog No: E-FS-C003

50T

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.

Phone: 240-252-7368(USA) Fax: 240-252-7376(USA)
Email: techsupport@elabscience.com
Website: www.elabscience.com

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

Test principle

This kit uses the principle of Colloidal Gold Immunochromatography assay. It can detect AHD (1-Aminohydantoin hydrochloride) in samples, such as honey, tissue, liver, etc. After adding the sample solution into the sample well of detection card, AHD of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with AHD conjugate on the cellulose membrane. When the concentration of AHD in the sample solution is more than the detection limit, the detect line do not show color reaction and the result is positive. When the concentration of AHD in the sample solution is less than the detection limit, the detect line shows purple and the result is negative.

Technical indicator

Sensitivity: 1 ppb (ng/mL)

Detection limit: Honey, Tissue, Liver---0.5 ppb.

Kits components

Item	Specifications
Detection card (with pipette)	50T/kit
Reconstituted Solution	1 vial
Derivatization reagent	2 vials
Manual	1 copy

Other materials required but not supplied

Instruments: Homogenizer, Nitrogen Evaporators, Water bath, Oscillators, Centrifuge, Graduated pipette, Balance (sensibility 0.01g)

High-precision transferpettor: Single channel (20-200 μL, 100-1000 μL)

Reagents: Ethyl acetate, N-hexane, NaOH, Concentrated HCl, $K_2HPO_4 \cdot 3H_2O$

Sample pretreatment

Restore all reagents and samples to room temperature before use.

1. **Sample pretreatment Notice:**
   Experimental apparatus should be clean, and the pipette should be disposable to avoid the experiment result be interfered by the contamination.
2. **Reagent preparation**
   Solution 1: 0.5 M K_2HPO_4 Solution
   Dissolve 11.4 g **$K_2HPO_4 \cdot 3H_2O$** to 100 mL with deionized water
   Solution 2: 1 M HCl Solution
   Dilute 8.6 mL **Concentrated HCl** to 100 mL with deionized water
   Solution 3: 1 M NaOH Solution
   Dissolve 4 g **NaOH** to 100 mL with deionized water

3. Sample pretreatment procedure

3.1 Pretreatment of honey, tissue, liver:

(1) Weigh 2±0.05 g of sample into EP tube, add 4 mL of deionized water, 0.5 mL of **1 M HCl Solution** (Solution 2) and 200 μL of **Derivatization reagent**, oscillate for 5 min.

(2) Incubate for 30 minutes in water bath at 65 ℃.

(3) Add 1 mL of **0.5 M K_2HPO_4 Solution (**Solution 1), 0.4 mL of **1 M NaOH Solution** (Solution 3) and 5 mL of **Ethyl acetate**, oscillate for 5 min.

(4) Centrifuge at 4000 r/min at room temperature for 5 min.

(5) Take 2.5 mL of upper liquid to another tube, dry in nitrogen evaporators/water bath at 50~60℃.

(6) Dissolve the residual with 1 mL **N-hexane**, add 0.5 mL of **Reconstituted Solution** and oscillate for 30s. Centrifuge at 4000 r/min at room temperature for 5 min.

(7) Discard the upper n-hexane, take the lower liquid to analyze.

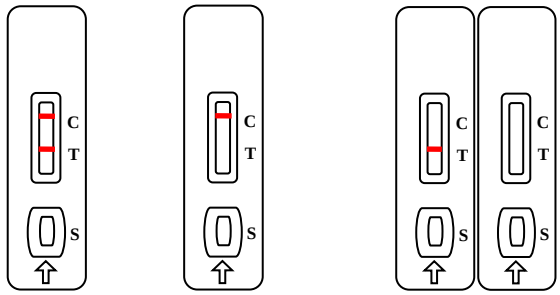
Note: Detection limit: 0.5 ppb

Experiment procedure

1. Tear the aluminum foil bag of the detection card and take out the detection card, and put it on a smooth, clean table.
2. Take the prepared clear sample supernatant with the matching pipette, add 2-3 drops (about 60 μL) of sample to the sample well (S) vertically and slowly (Avoid foaming).
3. Incubate for 8 to 10 minutes and then judge the results immediately.

Judgment of result

1. **Negative:** The control line region (C) and the test line region (T) both show a line in the observation well. It indicates the content of AHD in the sample is lower than detection limit or the sample doesn't contain AHD.
2. **Positive:** Only the control line region (C) show a line in the observation well. It indicates the content of AHD in the sample is higher than detection limit.
3. **Invalid:** The control line region (C) does not show a line in the observation well. It indicates operation process is wrong or the test card is invalid.



Negative Positive Invalid

Notes

1. Do not use product out of date or in a broken aluminum foil.
2. The detection card should be adjusted to room temperature after removed from the refrigerator before opening. The opening detection card should be used as soon as possible so as not to be invalid because of moisture.
3. Avoid of contacting the white membrane 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.
6. If the samples are not indicated in the manual, a preliminary experiment to determine the validity of the kit is necessary.
7. The kit is used for rapid screening of actual samples. If the test result is positive, the instrument method such as HPLC, LC/MS, etc. can be used for quantitative confirmation.

Storage and valid period

Storage: Store at 2-30℃ for 1 year. With cool and dry environment.

Expiry date: expiration date is on the packing box.