Elabscience®

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

SAs(Sulfonamides) Rapid Test Kit

Catalog No: E-FS-C028

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)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 competitive-inhibition-GICA. It can detect SAs (Sulfonamides)in samples, such as honey, tissue (fish, prawn, crab, meat of livestock and entrails),and milk. After adding the sample solution into the sample well of detect card, SAs of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with SAs conjugate on the cellulose membrane. When the concentration of SAs in the sample solution is more than the detection limit, the detect line do not show color reaction (or the color is lighter than the control line) and the result is positive. When the concentration of SAs in the sample solution is less than the detection limit, the detect line shows purple (the color is equal or darker than the control line) and the result is negative.

Technical indicator

Sensitivity:20 ppb(ng/mL) (calculated by SM2)

Note: The final detection limit of sample equal to the result of sensitivity multiply by dilution ratio of sample pretreatment.

Sensitivityof sulfonamides:

Name	Sensitivity(ppb)
Sulfamethazine(SM2)	20
Sulfamonomethoxine(SMM)	3
Sulfamethoxydiazine(SMD)	4
Sulfadimoxine(SDM')	5
Sulfamerazine(SM1)	7
Sulfadiazine(SD/SDZ)	15
Sulfisomidine(SM2')	9
Sulfadimethoxine(SDM)	12
Sulfamethythiadiazole(SMT)	12
Sulfaclozine(Esb3)	30
Sulfathiazole(ST)	35
Sulfachlorpyridazine(SCPA)	35
Sulfamethoxypyridazine(SMP)	35
Sulfadimethoxine(SDT)	35
Sulfaquinoxaline(SQX)	35
Sulfasoxazole(SIZ)	120
Sulfapirazinmetossina(SMZ)	120

Detection limit: Tissue---5 ppb
Honey---20 ppb
Milk---40 ppb

Kits components

Item	Specifications
Detect card	50T/kit
Sample reconstituted solution	30mL
Manual	1 copy

Other supplies required

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

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

Reagent: Ethyl acetate

Sample pretreatment

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. **Sample pretreatment**

2.1 Pretreatment of tissue sample:

(1) Remove the skin and sebum of fish,prawn, crab, meat of livestock and entrails, homogenize them with homogenizer (honeydoesn't require to).Take4±0.05g of homogenized samplewithout fat into 50 mL EP tube.Add 2 mL pure water, oscillate strongly into a smooth paste, add 4 mL ethyl acetate, and oscillate for 5min. Centrifuge at 4000r/min for 5min at room temperature.

(2) Take 2 mL of clear upper organic phase to clean tube, blow-dry in nitrogen or air at 50-60℃;

(3) Add 0.5 mL reconstituted solution to dissolve the dry residual.

Note: Sample dilution factor: 0.25, Detection limit: 5 ppb (SM2)

2.2 Pretreatment ofhoney sample:

(1) Take 1±0.05g of honey sample into 15 mL EP tube. Add 1 mL 0.5M HCL,place for 30 min at 37℃.

(2) Add 2.5 mL 0.2M NaOH(adjust the pH to 5), add4 mL ethyl acetate again, oscillate for 5min. Centrifuge at 4000r/min for 5min at room temperature;

(3) Take 2 mL of clear upper organic phase to clean tube, blow-dry in nitrogen or air at 50-60℃;

(4) Add 0.5 mL reconstituted solution to dissolve the dry residual.

Note: Sample dilution factor: 1, Detection limit: 20 ppb (SM2)

2.3 Pretreatment of milk sample:

Dilute the fresh milk sample with deionized water (V/V=1:1), mix fully for analysis.

Sample dilution factor: 2, Detection limit: 40 ppb (SM2)

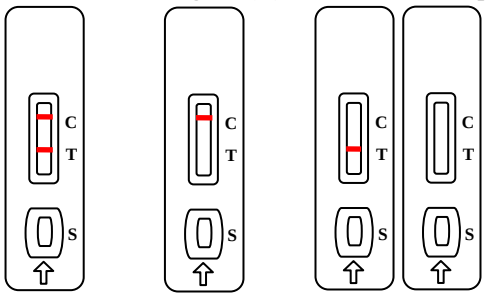
Experiment procedure

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 2-3 drops (about 60μL) of sample to the sample well (S) vertically and slowly.
3. Keep the detect card at room temperature for 8-10min, 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 in the observation well. **Positive:**only the control line region (C) shows a purple line in the observation well.

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℃ with dry condition.

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