

**SD (Sulfadiazine) Lateral Flow Assay Kit**

Catalog No: E-FS-C117

20T/40T/80T

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.

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017

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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**

This kit uses the principle of Immunochromatography assay for the qualitative detection. It can detect SD (Sulfadiazine) in samples, such as muscle, liver, etc. After adding the sample solution into the sample well of detection card, SD of the sample solution combine with the gold-labelled antibody, so as to prevent the combining of gold-labelled antibody with SD conjugate on the cellulose membrane. When the concentration of SD 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 SD in the sample solution is less than the detection limit, the detect line shows color and the result is negative.

**Technical indicator**

**Detection limit of sample:** Muscle, Liver ---50 ppb.

**Kits components**

Item	Specifications
Detection Card (with disposable dropper)	40 T/kit
Reconstitution Buffer	1 vial
Dissolver	2 vials
Manual	1 copy

Note: All reagent bottle caps must be tightened to prevent evaporation and microbial pollution.

**Other materials required but not supplied**

**Instruments:** Homogenizer, Centrifuge, Oscillators, Nitrogen evaporators, Graduated pipette, Balance (sensitivity 0.01).

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

**Reagents:** Ethyl Acetate.

## Notes

1. FOR RESEARCH USE ONLY. Do not use product out of date or in a broken aluminum foil.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 disposable dropper 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. **Each reagent is optimized for use in the E-FS-C117. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other E-FS-C117 with different lot number**
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 expiry date

**Storage:** Store at 2-30°C. With cool and dry environment.

**Expiry date:** expiration date is on the packing box.

## Sample pretreatment

Restore all reagents and samples to room temperature before use.

### 1. Sample pretreatment Notice:

Experimental apparatus should be clean, and the disposable dropper should be disposable to avoid the experiment result be interfered by the contamination.

### 2. Sample pretreatment procedure:

#### 2.1 Sample pretreatment of muscle (fish, shrimp, crab and livestock), liver sample:

- (1) Remove the skin and fat of fish, shrimp, crab and livestock, homogenize with homogenizer.
- (2) Weigh  $4 \pm 0.05$  g of homogenate sample into 50 mL centrifuge tube, add 2 mL of deionized water, mix fully. And add 4 mL of **Ethyl Acetate**, oscillate for 5 min. Centrifuge at 4000 r/min at room temperature for 5 min.
- (3) Take 2 mL of clear upper organic phase to a clean tube, dry with nitrogen evaporators/water bath at 50-60°C. (Please do it in a ventilated environment.)
- (4) Dissolve the residual with 0.5 mL of **Reconstitution Buffer**, take the lower liquid for analysis.  
*If the fat content is high after drying, please add 1 mL **Dissolver**, oscillate and mix fully. Then add 0.5 mL **Reconstituted Solution**, mix fully and stand for 5 min. Liquid will have clear stratification, take the lower liquid to analysis.*

**Note: Detection limit: 50 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 with the matching disposable dropper, add 2-3 drops (about 60  $\mu\text{L}$ ) 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.
2. **Positive:** Only the control line region (C) show a line.
3. **Invalid:** The control line region (C) does not show a line. It indicates operation process is wrong or the test card is invalid.

