

# RAC(Ractopamine) Lateral Flow Rapid Test Kit

Cat# LF1004

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

## PRINCIPLE of KIT

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

## SPECIFICATION

**Sensitivity:** 3 ppb (ng/mL)**Detection limit:** Urine---60 ppb; Muscle ---60 ppb

## COMPONENTS

Item	Specification
Detection card (with pipette)	50 T/kit
Manual	1 copy

### **Other materials required but not supplied**

**Instruments:** Homogenizer, Water bath, Oscillators, Centrifuge, Graduated pipette, Balance (sensitivity 0.01 g).**High-precision transferpettor:** Single channel (20-200 µL, 100-1000 µL).

## 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. Sample pretreatment procedure:**

#### **2.1 Pretreatment of urine (swine) sample:**

Take clear upper urine sample to determine, the sample needs to be centrifuged at 4000 r/min for 10 min if turbid.

Note: Detection limit: 60 ppb

## 2.2 Pretreatment of muscle (livestock) sample:

(1) Weigh  $3.0 \pm 0.05$  g of homogenized fresh sample into a 50 mL centrifuge tube, add 3 mL of deionized water and oscillate for 5 min.

(2) Incubate the tube in boiling water bath for 5~10 min. Stand the tube for 5 min to make it cool, then take the supernatant for detection.

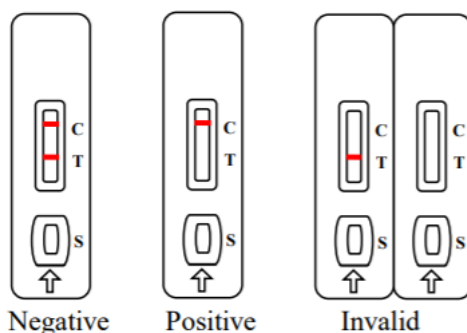
Note: Detection limit: 60 ppb

## **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  $\mu$ 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. It indicates the content of RAC in the sample is lower than detection limit or the sample doesn't contain RAC.
2. Positive: Only the control line region (C) show a line in the observation well. It indicates the content of RAC in the sample is higher than detection limit.
3. Invalid: The control line region (C) does not show a line. It indicates operation process is wrong or the test card is 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.
8. Each reagent is optimized for use in the LF1004. Do not substitute reagents from any other manufacturer into the test kit. Do not combine reagents from other LF1004 with different lot numbers.

### **PRODUCT USE LIMITATION**

These products are intended for research use only.