

## Salbutamol Rapid Test Strip (Catalog: TBS11141; 20 tests/kit)

For detection of salbutamol residue from tissue, urine, food samples.

### INTRODUCTION

Salbutamol is a  $\beta$ 2-adrenergic receptor agonist. When it is added to animal feed, it can increase body muscle percentage, slow down fat deposition and promote animal growth. However, when residual salbutamol in food enters the human body, it can pose immediate health risks, leading to dizziness, palpitation, anxiety, tremors, headache, vomiting, and muscle cramps. Therefore, it has been strictly prohibited to be used on farmed animals.

Tribioscience's Salbutamol Sapid Test Strip provides a rapid and convenient method to detect salbutamol in urine, blood serum, and animal feed of livestock and poultry.

### KIT APPLICATIONS

The Salbutamol Rapid Test is a lateral flow strip test for rapid detection of salbutamol in tissue, urine, and feed samples.

Assay sensitivity: 3 ng/ml (3 ppb)

Assay time: 5-10min

### PRINCIPLE OF THE ASSAY

Assay Principles of The Salbutamol Rapid Test is based on the principle of competitive lateral flow immunochromatography. A salbutamol antibody is conjugated to colloidal gold and placed on conjugate pad. Colloidal gold provides red color to visualize antibody-antigen binding. Salbutamol antigen is immobilized on nitrocellulose membrane. After testing sample is loaded onto sample pad, it mixes with gold-antibody conjugate and migrates together along the membrane. If sample contains no salbutamol, antibody conjugated to colloidal gold will bind the antigen immobilized on membrane, leading to clear red color presented on membrane detection line where the test antigen is immobilized (indicating a negative result). If salbutamol is present in the test sample, it will bind gold-antibody conjugate and prevent its binding onto the antigen line on membrane. As a result, no color will be visible on detection line on membrane (indicating a positive result).

### KIT CONTENT AND STORAGE CONDITIONS

- 20×foil pouches/kit. Each pouch contains one cassette, one pipette and a desiccant.
- Assay buffer (10 mL)

Shelf-life: Storage at room temperature (2-30°C) is stable for one year.

### PRECAUTIONS

Wear protective gloves, clothing, eye, and face protection. Wash hands thoroughly after handling.

### SAMPLE PREPARATION AND TEST PROCEDURES

Bring test strip, samples, and all reagents to room temperature (20-25°C) before use.

#### Sample Preparation:

**Urine Sample:** Take urine sample, centrifuge at 6000rpm/min for 5min. The clear supernatant can be directly used for the assay.

**Blood serum samples:** Draw blood from animals to be tested, and centrifuge or keep still to collect transparent upper layer (blood serum) as test solution. If excessive hemolysis is observed, dilute serum 2-fold with distilled water before testing.

#### Tissue Sample:

1. Collect tissue sample about 2g without fat tissue into 15mL tube.
2. Add 5mL of deionized water, and tightly cover the lid, and incubate in water bath at 80°C for 10min.
3. Take out the extracted liquid into a 1.5mL tube. Then centrifuge at 4000 rpm for 1min to make the extract clear. Note: if there is fat layer, just insert the pipette through the fat layer, and take the water phase liquid for the assay.

#### Animal Feed Sample

1. Take 1g feed sample into 15mL tube.
2. Add 5 mL of deionized water, and tightly cover the lid, and incubate in water bath at 80°C for 10min.
3. Take out the extracted liquid into a 1.5mL tube. Then centrifuge at 4000 rpm for 1min to make the extract clear. Note: if there is fat layer, just insert the pipette through the fat layer, and take the water phase liquid for the assay.

#### Testing Procedures

1. Take out the cassette from the foil pouch and place it horizontally.
2. Gradually drip 3 drops of sample into the sample hole "S". Interpret the result in 5-10 minutes.
3. Result Interpretation.

Test result is interpreted by observing test line and control line shown in result window as the below diagram (Fig. 1).

**Negative (-):** both test (T) and control lines (C) are present, indicating "Negative" which means that the salbutamol concentration in sample is lower than the detectable amount; **Positive (+):** control line(C) is present, and test line (T) is absent. This result indicates the salbutamol centration is higher than the detectable line in sample. **Invalid test:** no control line (C) is present. Please repeat the test using a new test strip following instructions in this user guide.

Fig. 1 Diagram for result interpretation.



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### RELATIVE PRODUCTS

Clenbuterol Rapid Test for Tissue Samples (TBS11112)  
Clenbuterol Rapid Test for Urine Samples (TBS11111)  
Ractopamine rapid detection test strip (TBS11131)  
Ochratoxin A test strip (TBS11161)  
Shiga Toxin (STX) Rapid Test Strip (TBS11151)  
Vomitoxin / Deoxynivalenol (DON) Test Strip (TBS11156)  
Aflatoxin B1 Test Strip (TBS11166)  
Zearalenone (ZEA) Test Strip (TBS11171)  
Chloramphenicol Fast ELISA (TBS21121)  
Melamine Fast ELISA (TBS21104)  
Total Aflatoxin Fast ELISA(TBS21131)  
Ochratoxin-A Fast ELISA(TBS21133)  
Microbial Magnetic DNA Extraction (TBS6025)  
STEC-Salmonella qPCR kit (TBS42029)  
4-in-1 Aspergillus qPCR kit (TBS42025)