

## 3IN1 BTS

### Beta-lactams+Sulfonamides+Tetracyclines Rapid Test for Tissue

Order Code: YRT1024

#### Introduction

The triple rapid test strip of Antibiotic ( $\beta$ -lactam+Sulfonamides+Tetracyclines) in tissue based on Colloidal Gold Immunochromatography technology. The whole process can be divided into two parts, that is sample pretreatment and detection, which cost 15-30 minutes.

#### Application

For pork, beef, mutton, chicken and other poultries, also for the issue of fresh water fish, marine water fish, shellfish and other aquatic product.  
It can be use the same sample pretreatment with other rapid test kit for Tissue and Food.

#### Performance Information

**Specificity:** No cross reaction with Aminoglycosides, Fluoroquinolones, Macrolides and chloramphenicols.

**Sensitivity:** limits of detection( $\mu\text{g}/\text{kg}$ -ppb)

#### Beta-lactams

Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )	Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )
Penicillin G	8-10	Cefapirin	60-100
Amoxicillin	30-50	Cefazolin	300-400
Ampicillin	30-50	Cefoperazone	15-30
Cloxacillin	30-50	Ceftiofur	800-1000
Nafcillin	100-150	Cefquinome	60-100
Oxacillin	40-60	Cephacetrile	100-200
Dicloxacillin	40-60	Cephalonium	40-80
Piperacillin	40-60	Cefalotin	200-300

#### Sulfonamides

Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )	Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )
Sulfadimidine	80-100	Sulfadiazine	80-100
sulfamethoxazole	80-100	Benzene sulfapyridine	200-300
Sulfadimethoxydimidine	8-20	Sulfadimoxine	300-500
Sulfamerazine	20-40	Sulfathiazole	15-30
Sulfachlorpyridazine	30-50	Sulfaphenazolum	150-300
Sulfamethoxine	50-80	Sulfaquinoxaline	80-100
Sulfamethizole	20-30	Sufapyridine	60-80
Sulfamonomethoxine	10-20	Sulfamethoxydimidine	80-100
Sulfapyrazole	300-500	Sulfisoxazole	300-500
Sulfamoxole	200-300		

#### Tetracyclines

Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )	Name of antibiotics	LOD( $\mu\text{g}/\text{kg}$ )
Tetracycline	80-100	Doxycycline	80-100
Chlortetracycline	80-100	Oxytetracycline	80-100

#### Storage and Shelf Life

Storage: Store at 2-30°C. Keep away from direct sunlight, moisture and heat.  
Shelf Life: 12 months.

#### Test Kit Components(48test/kit)

- 5 bottles YRSP universal sample extraction solution.
- 6 test tubes, each containing 8 red reagent microwells and 8 dipsticks.
- 1 Plate Holder.
- 1 instruction manual.

#### Materials Required but not provided

Adjustable mixer(optional), centrifuge, centrifuge tube(50mL), Reader(optional).

## Sample Preparation

1. Weigh  $2.00 \pm 0.1g$  homogeneous sample and put into 50mL centrifuge tube.
2. Add 8mL universal sample extraction solution (YRSP), then 1-3mins for high speed shock. (Note: When vortex is not available, users may shake the tube vigorously up and down for 60 seconds to make the tissue diffused)
3. Centrifuge at 4000rpm for 3-5mins at room temperature. The supernatant is the Detection Sample.

## Test Procedure

1. Take out the red reagent microwell and put it on the plate holder. Pipette 200 $\mu$ L **Detection Sample** into the red reagent microwell and mix well by pipetting up and down for 5-10 times.
2. Incubate 3mins at room temperature (20-30 $^{\circ}$ C).
3. Dip the dipstick into the microwell after first incubation.
4. Incubate 4mins at room temperature.(20-30 $^{\circ}$ C)
5. Take out the dipstick from microwell and remove the sample pad at the lower end. Interpret the result.

Note: If the Room Temperature is below 20 $^{\circ}$ C, please incubate at  $40 \pm 2^{\circ}$ C by Bioeasy incubator for same time period during the above two incubation steps.

## Test Interpretation

### Visual Interpretation

1. Check whether the top control line(C line) is present. If there is normal C line, compare the color intensity of test line (T line) and C line and interpret the test based on following chart.

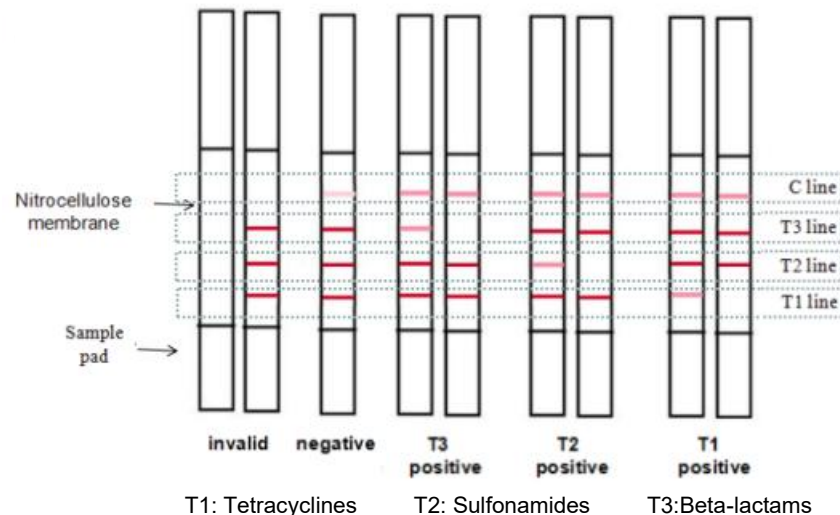
Test Line VS Control Line	Result Interpretation	Result Analysis
T $\geq$ C	NEGATIVE	The sample contains no related antibiotics or with residues level lower than the detection limits
T < C or NO T	POSITIVE	The sample contains related antibiotics above the detection limits

2. If there is no visible C line or T line, the test is judged as invalid. Please repeat the test.
3. If there is a normal T line ,but the color intensity of C line is hard to read, please use the reader to interpret.
  - \* If the reader can interpret normally, the interpretation is negative.
  - \* If the reader can't interpret the numerical,the test is judged as invalid because the C line is totally invisible, please repeat the test..

### Interpretation by Reader

1. Please refer to the reader instruction manual for the detail process.
2. Negative:  $R \geq 1.0$ , Positive:  $R < 1.0$ .

## Interpretation diagram



## Precautions

1. It is advisable to use a clean table and wash hands thoroughly and wear gloves before testing to avoid any contamination of the test which is very sensitive to antibacterial substances.
2. As there is low concentration of acid in some of the reagents, please wear gloves for protection purpose.
3. The skin of tissue samples should be removed and the connective tissue should not be used.
4. Get the kit from refrigerator and allow the kit warm up to room temperature before testing((15-30 $^{\circ}$ C).
5. Do not mix dipsticks and reagent microwells from different lots. Use dipsticks before it is expired.
6. The tube with microwells and dipsticks should always be well closed after reagents have been taken out. Empty one tube before opening another and try to finish one tube within a week.
7. Use a new pipette tip for every new sample.
8. Hold the dipstick from the upper side(Absorbing pad side). Do not touch the lower end (Sample pad and Nitrocellulose membrane areas), which may affect the performance of the dipsticks.
9. After the second incubation, read the result directly within 5mins. The results is invalid after more than 5mins.
10. When a positive result is identified, repeat testing for double confirmation.
11. If there is obvious breakpoint on the Test line, repeat the test.
12. This product is only used for preliminary screening, and the final result shall be subject to the official arbitration detection methods.