Sulfamethazine Residue Rapid Test Strip (Tissue)

Prod. No.: DTS014
Pkg.Size: 40T

INTENDED USE
The Sulfamethazine Residue Rapid Test Device is used to qualitative detection of Sulfamethazine in aquatic samples at the sensitivity of 20 μg/kg (20 ppb). It only takes approx. 30 minutes.

GENERAL DESCRIPTION
Sulfamethazine (SM2) is a broad spectrum antibiotic which is widely used as bacteriostatic agents in animal husbandry and veterinary practice. Combined with inhibitors of dihydrofolate reductase such as trimethoprim, tetroxoprim, or pyrimethamine, Sulfamethazine are also used in veterinary medicine for the treatment of intestinal infections, mastitis, pulmonitis and other (systemic) diseases. However, it leads side effects of hematotoxic, agranulocytosis, hypersensitivity. It will affect urinary system and cranial nerves system. Therefore, it is possible that Sulfadiazine residues, after use in illegal practice, may lead to a risk for consumers.

STORAGE
Store at 4-30°C, DO NOT FREEZE or use beyond the expiration date. The shelf life is 12 months.

PRECAUTIONS
1. Do not use after the expiration date.
2. The test device should remain in the sealed pouch until use.
3. Use device as soon as possible but within 1 hour after removal from the pouch specially.
4. Do not touch the white membrane in the mid of the test device.
5. Use the plastic dropper for one time in case cross reaction happens.
6. It may lead into wrong result if there is bleach, oxydant, or fusty serum.
7. Do the test at room temperature. It takes longer time at high temperature, and shorter time at low temperature.
8. Different samples will influence the result on NC thecal. Read the result according to color differences of the color bar.
9. Be careful if you are allergic to antibiotics.

SPECIMEN TREATMENT
The samples should be stored in a cool place, protected against light.
1. Homogenize a reasonable amount of sample (e.g. 50g) with a suitable equipment (e.g. ultra turrax or mixer).
2. Weigh 5 g of homogenized sample into a 50ml centrifuge tube.
3. Add 8 ml ethyl acetate and blend for approx. 10min.
4. Centrifuge for separation: 5 min / 4000 rpm / at room temperature.
5. Transfer 7ml supernatant into a rotary flask and dry it at 65°C with a mild stream of nitrogen or atmosphere.
6. Add 0.5 ml N-hexane and 0.3 ml PBST only for SM2 orderly, dissolve the dried residue around the inner-tube, and keep still for 2 min.
7. Suck 100 μl of under layer liquid for test.

MATERIALS PROVIDED
Sulfamethazine Residue Rapid Test Device: 40 devices
PBST buffer only for SM2
Desiccant: 1 piece per sealed pouch

ADDITIONAL MATERIAL
1. Ethyl acetate
2. N-hexane
3. 50 ml graduated-tube
Balance, centrifuge, a mild stream of nitrogen or atmosphere, transferpettor and so on.
TEST PROCEDURE

1. Prepare samples according to SPECIMEN TREATMENT.
2. Remove the Residue Rapid Test Devices from sealed pouch.
3. Hold the dropper vertically and transfer 3 full drops of solution obtained from specimen treatment to the specimen well (S) of the test device, and then start the timer. Avoid trapping air bubbles in the specimen well (S).
4. Wait for purplish red bands to appear. The result should be read in approximately 5~10 minutes. It is significant that the background is clear before reading the test. Do not interpret results after 10 minutes.

QUALITY CONTROL

Procedural control is applied. Apurplish red band appears in the control region (C), which is also the reference region (R) that is for internal procedure control. It ensures efficiency and correct procedure technique.

Control standard is not supplied in this device. Proper laboratory practice is the confirmation of the test procedure and test performance.

LIMITATION OF THE PROCEDURE

1. The Sulfamethazine Residue Rapid Test Device is only a preliminary analytical result. A secondary analytical method must be taken for confirmation. Gas or liquid chromatography and mass spectrometry method (GC/LC/MS) is preferred.
2. The Sulfamethazine Residue Rapid Test Device is a qualitative screening assay and cannot test the Sulfamethazine concentration in the specimen.
3. Technical or procedural errors, as well as other interfering substance in the specimen may cause falseness.

SPECIFICITY

No cross-reaction with Sulfadiazine (100μg/kg), Sulfapyridine (100μg/ml), Sulfaguanidine (100μg/ml) or Sulfadimethoxine (100μg/ml).
No cross-reaction with Chloramphenicol, Tetracyclines, or Streptomycin.

PRECISION

A multi-center test evaluation is conducted comparing with the results obtained from our Sulfamethazine Residue Rapid Test Device to other commercially available ELISA Sulfamethazine test. 152 specimens are studied, including 78 negative and 74 positive. 98.7%of our Sulfamethazine Residue Rapid Test Device is effective when comparing with other ELISA Sulfamethazine test.

REFERENCE