Chloramphenicol Rapid Test (Aquatic Products)

*Cat. No.: DTS418*

**Intended use**

CD Chloramphenicol Rapid Test is a competitive immunoassay for the semi-quantitative detection of the presence of Chloramphenicol residue in aquatic product sample.

**General Description**

Chloramphenicol is an antibiotic that was derived from the bacterium Streptomyces venezuelae. It was the first antibiotic to be manufactured synthetically on a large scale. Chloramphenicol is effective against a wide variety of microorganisms, but due to serious side effects (e.g., damage to the bone marrow) in humans, it is usually reserved for the treatment of serious and life-threatening infections (e.g., typhoid fever). It is also used in eye drops or ointment to treat bacterial conjunctivitis.

**Principle Of The Test**

CD Chloramphenicol Rapid Test is based on competitive lateral flow immunochromatographic assay. The CAP-conjugate in the test zone will capture the immuno-gold (colloid gold-CAP antibody conjugate), when there is very little dissociative CAP in the samples. A visible red test band indicates a negative result when the control line (C zone) shows that the card is valid. The test band (T zone) will be not visible if CAP is present in concentration of 0.3 ppb and above which explains a positive result.

**Reagents And Materials Provided**

- 10×foil pouches each containing one cassette and a desiccant
- 2×assay buffer (Diluent A, 30 mL, Diluent B 8 mL)
- 10×pipettes
- 2×centrifugal tubes (15 mL)
- 1×plastic canister containing 10 microwells and a desiccant

**Product Manual**

**Storage**

The kit can be stored at room temperature (2-30°C). The test kit is stable through the expiration date (18 months) marked on the foil pouch. DO NOT FREEZE. Do not store the test kit in direct sunlight.

**Assay Procedure**

1. Get rid of the fat tissue and cut down the sample materials. Homogenize the sample at 10000 rpm for 1 min. Weigh out 4 g of the homogenized sample and place it into a 15 mL centrifugal tube.
2. Add 2 mL of Diluent A and mix well. Then add 6 mL of ethyl acetate into the tube and shake for 10 min. (If emulsification appears, do a centrifugation at 5000 rpm for 2-3 min.)
3. Collect 4 mL of the supernatant liquid into a clean beaker. Dry the liquid by blowing wind. Redissolve the residue in the beaker with 0.3 mL of Diluent B. Stand for a while to separate into two layers.
4. Take out the microwells strip from the plastic canister. Take one well and tear off the film. Transfer 0.2 mL (reticle on the pipette) of the underlayer liquid into the well. Repeatedly suck and extrude the sample until all red reagents are completely...
dissolved. Wait for 1 min.
5. Take out the cassette from the foil pouch and place it horizontally.
6. Suck the mixture in the well and gradually drip 3 drops into the assay sample hole “S”.
7. Interpret the result in 3-5 min. Result after 5 min is considered as invalid.

**Interpretation of Results**

Positive: Only one clear band in C zone C indicates a positive result. If a vague T band can be seen but apparently weaker than C band, we also consider it as a positive result. Positive shows that the concentration of Chloramphenicol is above 0.3 ppb (ng/mL) in the sample.

Negative: The presence of both clear bands in C zone and T zone. (T band is close to or stronger than C band.)

Invalid: No colored band appears in C zone.

**Detection Limit**

0.3 ppb (ng/mL)

**Specificity**

The results are negative when the test card is applied to detect 100 ppm (μg/mL) of Tetracyclines, Aminoglycosides, Beta-lactams, Sulfonamides, and Macrolides.

**Precautions**

For best results, please strictly adhere to these instructions.

All reagents must be at room temperature before running the assay.

Do not remove test cassette from its pouch until immediately before use.

Do not reuse the test kit.

Do not use the test beyond its expiration date marked on the foil pouch.

The components in this kit have been quality control tested as standard batch unit. Do not mix components from different lot numbers.

**Limitations**

CD Chloramphenicol Rapid Test is an useful tool offering a rapid and accurate testing in field screening, exceeding with its convenience. It provides a semi-quantitative method to detect the Chloramphenicol above 0.3 ppb in aquatic product samples. If you want a quantitative result, please adopt other method such as ELISA/ HPLC in practice.