

# CDIA™ Tetrodotoxin Colloidal Gold Test Cassette (DTSJYJ123V2)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

**Size** 25T

### Intended Use

CDIA™ Tetrodotoxin Colloidal Gold Test Cassette is a lateral flow chromatographic immunoassay for the detection of TTX in human serum.

### General Description

Tetrodotoxin (TTX) is a powerful neurotoxin, which is tolerance to heat, salt and cooking. Minimum lethal dose for human is about 0.5mg/60 kg of body weight, the toxicity is 1000 times great than the sodium cyanide. Every year many people are ill due to improper eating or eating puffer fish. Therefore, it is significant to accurate detection of tetrodotoxin in puffer fish in order to prevention and control of tetrodotoxin poisoning.

Compared to the traditional method, the developed colloidal gold nanoparticle probe for the immunoassay is rapid and accuracy, and the detection can be finished in several minutes.

### Principles of Testing

The Tetrodotoxin Colloidal Gold Test is a chromatographic immunoassay for the qualitative detection of tetrodotoxin in human serum. The tetrodotoxin in the specimen will compete with the tetrodotoxin-BSA conjugate, which is immobilized on a porous membrane for binding of the specific anti-TTX monoclonal antibody-gold conjugate. Labeled specific antibody-gold conjugate mixes with sample and binds to the free tetrodotoxin present forming an antibody-antigen complex. This complex competes with immobilized tetrodotoxin-BSA in the test region which will prevent the formation of a pink band when the tetrodotoxin is above the detection level of 10ppb. Therefore a positive specimen will not show a pink band on test region, while the presence of the pink band on the test region indicates a negative result.

### Reagents And Materials Provided

1. TTX (Tetrodotoxin) Test Cassettes: 25T/kit
2. Sample Diluent
3. Product Manual

### Materials Required But Not Supplied

1. Specimen collection container

2. Pipette (20-200µL, 100-1000µL, 1-10mL)
3. Consumables: gun tip, disposable gloves, centrifuge tube
4. Timer

**Storage**

The kit can be stored at room temperature (4-30°C). The test kit is stable through the expiration date (12 months). DO NOT FREEZE. Do not store the test kit in direct sunlight.

**Specimen Collection And Preparation**

Collect blood aseptically by venipuncture into a clean tube without anticoagulants. Permit blood to clot for twenty to thirty minutes at room temperature. Centrifuge to obtain clear serum and transfer serum into a clean plastic or glass tube. The test may be performed using human serum or whole blood.

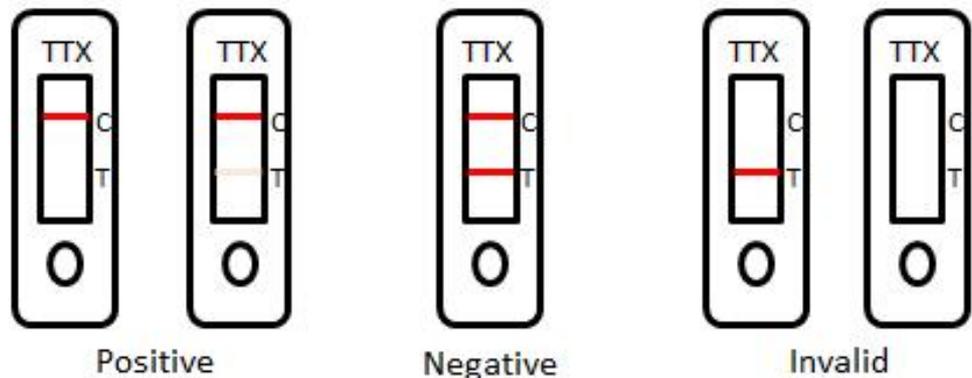
If specimens are not immediately tested they should be refrigerated at 2°C -8°C. For storage periods greater than three days, freezing is recommended (-20°C). If specimens are to be shipped, they should be packed in compliance with federal regulations covering the transportation of etiologic agents. Specimens containing precipitate may yield inconsistent test results. Such specimens must be clarified prior to assaying.

**Assay Procedure**

NOTE: Bring an unopened foil pouch and the sample specimen to room temperature before performing the test.

1. Remove the test cassette from the sealed pouch.
2. Take 10 µL serum, add 190 µL buffer. Mix completely with pipette at least 10 times.
3. Holding the dropper vertically, add 100 µL of diluted sample directly to the sample well "S" of the test device and start the time.
4. Interpret the result after 15 minutes. Result after 20 minutes is considered as invalid.

**Interpretation Of Results**



**Positive:** No red band appears in T band means that Tetrodotoxin (TTX) in the sample solution is higher than 10ppb.

**Negative:** Both clear "C" band and "T" band appears. It means that Tetrodotoxin (TTX) in the sample extraction is lower than 10ppb.

**Invalid:** No colored band appears in C zone, no matter whether T band appears. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for an invalid result. Review the procedure and repeat the test with a new test device.

**Sensitivity** Serum..... 10ppb

**Precautions** 1. For best results, please strictly adhere to these instructions.

2. All reagents must be at room temperature before running the assay.
  3. Do not remove test cassette from its pouch until immediately before use.
  4. Do not reuse the test kit.
  5. Do not use the test beyond its expiration date marked on the foil pouch.
  6. The components in this kit have been quality control tested as standard batch unit.
  7. Do not mix components from different lot numbers.
  8. The kit is for research use only. All results should be considered with other clinical information available from veterinarian. For an accurate result, it is suggested to apply other method such as ELISA or HPLC-MS for final determination in practice.
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