

Ochratoxin A Rapid Test Strip Kit (20 tests/kit)

For Detection of OTA from food, grain, and feed.

INTRODUCTION

Ochratoxin A (OTA) is a toxic secondary metabolite produced by some *Aspergillus* and *Penicillium* species and is widely present in grains (such as cereals), spices, dried fruit and coffee beans. Ochratoxin A can be accumulated in the meat of animals, and therefore can be found in meat and meat products. It possesses acute liver and kidney toxicity, and is a teratogen, mutagen, and carcinogen, and poses serious health risks to humans.

Tribioscience’s Ochratoxin A Rapid Test strip Kit provides a rapid and convenient test for OTA with a colloidal gold immunochromatographic design. It provides a fast (results shown in 10 minutes), simple (no instrument is required, and results can be observed visually), sensitive and reliable detection approach for the presence of ochratoxin A in grains and grain products, spices, and coffee beans. The lower limit of detection (LOD) of ochratoxin A in the sample is 2 ng/ml (2 ppb).

KIT APPLICATIONS

The Ochratoxin A Test Strip Kit is a lateral flow strip test for rapid detection of ochratoxin A in grain and feed samples. Assay sensitivity: 2 ng/ml (2 ppb).

PRINCIPLE OF THE ASSAY

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

KIT CONTENT AND STORAGE CONDITIONS

| PART | DESCRIPTION | STORAGE CONDITIONS |
|--------------------|------------------------------|--|
| Ochratoxin A test | 1 test trip/pack, 20pack/kit | The kit can be stored at 4-8°C for 1 year. |
| Disposable dropper | 1 Disposable dropper/pack | |
| Sample diluent | 8mL /Kit | |

PRECAUTIONS

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

SAMPLE PREPARATION AND TEST PROCEDURES

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

1. Pulverize over 5± 0.05 g of representative grain sample, and pass through a sieve with a mesh size of 20. Place 2 grams of this pulverized sample into a 50 ml centrifuge tube.
2. Add 8 ml ethyl acetate (EtAc) into this centrifuge tube and close lid tightly. Shake violently (or vortex) for 5 minutes, and then centrifuge at 4000rpm for 5min or let stand afterward.
3. Transfer 3 ml supernatant into a clean glass beaker, blow air over the surface until solvent evaporates completely. Re-dissolve residue in 200 µl sample diluent by shaking and mixing thoroughly. Take 100 µl of this re-dissolved solution and add another 100 µl sample diluent to obtain the test solution.
4. Add 2 drops of test solution described above into sample loading well with a disposable dropper.
5. Observe the result in 5-10 minutes.
6. Result Interpretation.

The test result is interpreted by observing the test line and control line shown in the result window like the below diagram (Fig. 1). **Negative (-):** both test (T) and control lines (C) are present, indicating ochratoxin A concentration in the sample is lower than 2 ng/ml; **Positive (+):** control line(C) is present, and test line (T) is absent. This result indicates ochratoxin A centration is higher than 2 ng/ml in the sample; **Invalid test:** no control line (C) is present. Please repeat the test using a new test strip following instructions on this user guide.

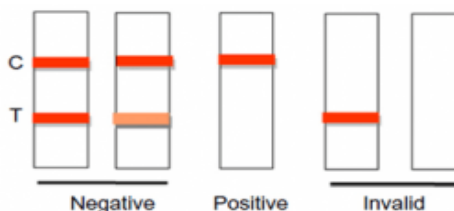


Fig. 1 Diagram for result interpretation.

Relative Products

- Clenbuterol Rapid Test Strip (TBS11111)
- Chloramphenicol (CAP) Test Strip (TBS11121)
- Ractopamine Rapid Test Strip (TBS11131)
- Salbutamol Rapid Test Strip (TBS11141)
- Shiga Toxin Test Strip (TBS11151)
- Deoxynivalenol (DON) Test Strip (TBS11156)
- Aflatoxin B1 Test Strip (TBS11166)
- Zearalenone (ZEA) Test Strip (TBS11171)
- Microbial Magnetic DNA Extraction (TBS6025)
- STEC-Salmonella qPCR kit (TBS42029)
- 4-in-1 Aspergillus qPCR kit (TBS42025)

For research use only.