

## Vomitoxin /Deoxynivalenol (DON) Rapid Test for Food Sample (20 tests/kit)

For DON Detection from food samples.

### INTRODUCTION

Vomitoxin, also known as deoxynivalenol (DON), belongs to the class of epoxy-sesquiterpenoid compounds, and is a toxic secondary metabolite produced by molds. It can be found at mg/kg level in contaminated grains such as wheat, maize, barley, oats, rye, and sometimes in rice or sorghum. Because of its high cytotoxicity (which arises from its inhibition of protein synthesis) and immunosuppressive activity, vomitoxin poses significant health risks to both humans and livestock. U.S. Food and Drug Administration has established a maximum allowed vomitoxin level of 1 ppm in human food, 5 ppm in dog or cat food, and 2-10 ppm for livestock feed.

Tribo™ Vomitoxin Rapid Test Strip provides a rapid and convenient test for vomitoxin with a colloidal gold immunochromatographic design. It provides a **fast** (results shown in 10 minutes), **simple**, **sensitive**, and **reliable** detection approach for the presence of vomitoxin in grain samples. The lower limit of detection (LOD) of vomitoxin in the sample is 0.1 µg/ml (0.1 ppm).

### KIT APPLICATIONS

The Vomitoxin Rapid Test is a lateral flow strip test for rapid detection of vomitoxin in food samples.

Assay sensitivity: 0.1 µg/ml (0.1 ppm); Assay time: 5-10min

### PRINCIPLE OF THE ASSAY

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

### KIT CONTENT AND STORAGE CONDITIONS

20×foil pouches/kit. Each containing one cassette, one pipette and a desiccant.

Shelf-life: Storage at room temperature (2-30°C) is stable for one year.

### PRECAUTIONS

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

### SAMPLE PREPARATION AND TEST PROCEDURES

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

1. Prepare samples with suitable methods for the assay testing.
2. Take out the cassette from the foil pouch and place it horizontally.
3. Hold the pipette vertically. Gradually drip 3 drops of sample into the sample hole.
4. Interpret the result in 5-10 minutes.
5. Result Interpretation.

Test result is interpreted by observing test line and control line shown in result window as the below diagram (Fig. 1). **Negative (-):** both test (T) and control lines (C) are present, indicating vomitoxin concentration in sample is lower than 0.1 µg/ml; **Positive (+):** control line(C) is present, and test line (T) is absent. This result indicates vomitoxin centration is higher than 0.1µg/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.

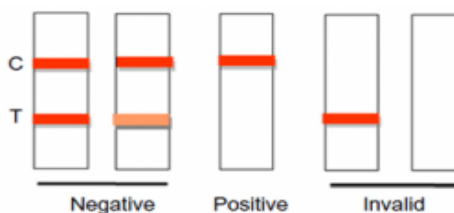


Fig. 1 Diagram for result interpretation.

### Relative Products

- Clenbuterol Rapid Test for Tissue (TBS11112)
- OTA Rapid Test Strip (TBS11116)
- Chloramphenicol (CAP) Test Strip (TBS11121)
- Ractopamine Rapid Test Strip (TBS11131)
- Salbutamol Rapid Test Strip (TBS11141)
- Shiga Toxin Test Strip (TBS11151)
- 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)

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