



**T-2test HPLC Affinity Column**

## Precise Numerical Results

T-2 is a toxin produced by various *Fusarium* fungi that naturally occur in wheat and other cereal grains. Ten times more toxic than the potentially lethal contaminant deoxynivalenol (DON), T-2 attacks the immune system in livestock, causing serious health problems ranging from skin lesions and weight loss to shock and hemorrhagic fever. Researchers have also linked T-2 to the devastating human disease alimentary toxic aleukia (ATA). The mounting evidence on the deadly effects of T-2 exposure has raised concerns among food safety regulators and underscores the importance of test methods that can detect trace amounts of this toxin before it reaches consumers.

Using monoclonal antibody-based affinity chromatography, *T-2test™ HPLC* is an HPLC-only test for the detection of T-2 using immunoaffinity columns. This fast, reliable test provides precise numerical results and can measure levels of T-2 as low as 5 ppb and as high as 1500 ppb.

An ideal cleanup step for any HPLC, *T-2test HPLC* has a long shelf life and provides precise numerical results in parts per million levels. The preferred test of laboratories around the world, no other test comes close for speed, quantification, and specificity.

### **Benefits:**

**Exclusive** – Specifically for HPLC use

**Convenient** – Uses same methods as other VICAM tests

**Durable** – Long shelf life; requires no refrigeration

**Versatile** – Can be used with a variety of samples

**Wide Range** – Detects levels as low as 5 ppb and as high as 1500 ppb

**Safe** – Requires less toxic materials than other methods

### **Here's How Simple T-2test HPLC is to Use:**

#### **Extract Sample**

- Grind and weigh sample
- Add methanol/water mixture
- Centrifuge and filter

#### **Dilute and Filter**

- Dilute extract
- Filter

#### **Absorb and Elute**

- Pass filtrate over *T-2test HPLC* affinity column
- Wash column
- Elute T-2 and collect in cuvette

#### **Derivatize**

- Evaporate eluate
- Derivatize with 1-AN and DMAP
- Heat 15 minutes; cool 15 minutes
- Evaporate mixture and reconstitute in mobile phase

#### **Measure**

- Inject into HPLC
- Determine T-2 concentration



## Ordering Information

Cat. No.	Description
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G1028	T-2test™ HPLC Columns (25 per box)
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G1130	Acetonitrile, HPLC Grade (4 x 4 L)
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20050	Graduated Cylinder, 50 mL
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20100	Digital Scale with AC Adapter
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20200	Commercial Blender with Stainless Steel Container
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20250	Graduated Cylinder, 250 mL
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20300	Glass Blender Jar, 500 mL
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20604	Micro-pipettor, 50 µL
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20658	Micro-pipette Tips for 50 µL Micro-pipettor
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20700	Wash Bottle, 500 mL (2)
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21010	Cuvette Rack
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21020	Single Position Pump Stand†
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23040	Vortex Mixer
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35016	Methanol, HPLC Grade (4 x 4 L)
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36010	Disposable Plastic Beakers (25 per pack)
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Cat. No.	Description
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36020	Filter Funnels, 65 mm (10 per pack)
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36022	Filter Funnel, 105 mm (4 per pack)
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**Also required; must be sourced locally:**

Centrifuge Suitable for 3000g and 4°C
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Distilled, Reverse Osmosis, or Deionized Water
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4-dimethylaminopyridine (DMAP)
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4 mL Silane-treated Amber Vials
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Heating Block (50°C) and Nitrogen Tank or Speed-vac Evaporator
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Ice
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1-anthronitrile (1-AN)
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Toluene
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Whatman GF/A Filter Paper
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Whatman #4 Filter Paper
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†Multiple position pump stands available

Subject to change without notice.

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The analytical methods presented in this data sheet have been researched and developed by VICAM to be used exclusively with T-2test™ HPLC products. These analytical methods have been validated in the VICAM laboratories to perform to the specifications indicated in the T-2test HPLC procedures.

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**VICAM**

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