



CitriTest™ HPLC Affinity Column



Precise Numerical Results

Citrinin, a toxin from a naturally occurring mold, contaminates rice, wheat, flour, barley, maize, rye, oats, peanuts, and fruit. It is also a widespread contaminant of red rice, which is not only a dietary staple in many Asian countries, but also a main ingredient in many other food products. It is also used in the popular herbal supplement red yeast rice extract which is used to reduce cholesterol levels.

Produced by *Aspergillus ochraceus* and *Penicillium citrinum*, citrinin has been known to cause kidney damage and mild liver damage in livestock and is suspected to cause kidney and liver damage in humans. Because of concerns over citrinin contamination, Japan has issued an advisory limit of 200 ppb and the European Union has a recommended limit of 100 ppb.

Using monoclonal antibody-based affinity chromatography, *CitriTest™ HPLC* is a new HPLC-only test for the detection of citrinin using immunoaffinity columns. Performed in less than 10 minutes, *CitriTest HPLC* can measure levels of citrinin as low as 10 ppb and as high as 500 ppb.

An ideal cleanup step for any HPLC, *CitriTest HPLC* has a long shelf life and provides precise numerical results in parts per billion 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

Quick - 10 minutes to isolate toxin*

Wide Range - Detects levels as low as 10 ppb and as high as 500 ppb

Here's How Simple CitriTest HPLC is to Use:

Extract Sample

- Grind and weigh sample
- Add methanol/water mixture
- Filter

Dilute and Filter

- Dilute extract

Absorb and Elute

- Pass filtrate over *CitriTest HPLC* affinity column
- Wash column
- Elute citrinin and collect in cuvette

Measure

- Inject into HPLC
- Determine citrinin concentration

* excludes preparation and extraction

Ordering Information

| Cat. No. | Description |
|----------|---|
| G1070 | CitriTest™ HPLC Columns (25 per box) |
| G1118 | WB Column Coupling (6) |
| G1130 | Acetonitrile (4 x 4 L) |
| G4033 | Micro-pipettor, 1 mL |
| 20050 | Graduated Cylinder, 50 mL |
| 20100 | Digital Scale with AC Adapter |
| 20200 | Commercial Blender with Stainless Steel Container |
| 20250 | Graduated Cylinder, 250 mL |
| 20656 | Micro-pipette Tips for 1 mL Micro-pipettor (100) |
| 21010 | Cuvette Rack |
| 21020 | Single Position Pump Stand† |

| Cat. No. | Description |
|----------|--|
| 23040 | Vortex Mixer |
| 31240 | VICAM Fluted Filter Paper, 24 cm (100) |
| 31955 | Microfiber Filters, 1.5µm, 11 cm (100) |
| 34000 | Disposable Cuvettes (250 per pack) |
| 35016 | Methanol, HPLC Grade (4 x 4 L) |
| 36010 | Disposable Plastic Beakers (25 per pack) |
| 36020 | Filter Funnel, 65 mm (10 per pack) |
| 36022 | Filter Funnels, 105 mm (4 per pack) |

Also required; must be sourced locally:

O-phosphoric acid, HPLC grade
Distilled, Reverse Osmosis, or Deionized Water

†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 CitriTest™ HPLC products. These analytical methods have been validated in the VICAM laboratories to perform to the specifications indicated in the CitriTest HPLC procedures.

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