



Afla B Affinity Column



Precise Numerical Results

Aflatoxin, a toxin from a naturally occurring mold, is a Group 1 carcinogen, proven to cause cancer in humans. Aflatoxin is made up of the sum of 4 total aflatoxins: B₁, B₂, G₁, and G₂; however, in some cases only B₁ is regulated. For example, within the European Community, B₁ is regulated at the 2 ppb level.

*Afla B*TM from VICAM is the trusted aflatoxin B test that produces precise numerical results. Using monoclonal antibody-based affinity chromatography, *Afla B* can isolate aflatoxins B₁ and B₂ from feeds, food, grains, and nuts via fluorometric or HPLC detection.

Whereas aflatoxin B₁ can be singled out and measured uniquely by HPLC, in fluorometric measurements, total B₁ and B₂ is reported. Then it is known that B₁ accounts for 94% of total B₁ and B₂ as measured in corn and for 82.5% as measured in peanuts¹.

Afla B is safe and simple. It can be performed in less than 10 minutes and requires no special skills. With *Afla B*, you have the best of all worlds: sensitivity, simplicity, and speed – quick tests for parts per billion or parts per trillion levels. In fact, no other test comes close for speed, quantification, and economy.

Benefits:

Convenient – For use with fluorometer or HPLC

Durable – Long shelf life; requires no refrigeration

Versatile – For use with a variety of samples

Quick – Less than 10 minutes to isolate toxin*

Wide Range – Detects levels as low as 1 ppb (fluorometer) and 50 ppt (HPLC) and as high as 300 ppb

Safe – Requires less toxic materials than other methods

Here's How Simple *Afla B* is to Use:

Extract Sample

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

Dilute and Filter

- Dilute extract
- Filter

Absorb and Elute

- Pass filtrate over *Afla B* affinity column
- Wash column with water
- Elute aflatoxins with methanol and collect in a cuvette

Measure

- Add developer and place cuvette into a calibrated fluorometer, or
- Inject eluate into HPLC
- Determine aflatoxin concentration

1. Data supplied by D. M. Wilson (unpublished), Department of Plant Pathology, Coastal Plain Experiment Station, University of Georgia, Tifton, GA 31793, USA

* excludes preparation and extraction



Ordering Information

| Cat. No. | Description |
|----------|--|
| G1003 | <i>Afla B</i> TM Columns (25 per box) |
| G1004 | <i>Afla B</i> Columns (50 per box) |
| G1124 | Noniodized Sodium Chloride (salt, NaCl) |
| G8000 | <i>Series-4EX Fluorometer</i> TM |
| G8001 | <i>AflaTest</i> [®] Basic Equipment Package 110 V |
| G8013 | <i>AflaTest</i> Basic Equipment Package 220 V |
| 20050 | Graduated Cylinder, 50 mL |
| 20100 | Digital Scale with AC Adapter |
| 20200 | Commercial Blender with Stainless Steel Container |
| 20250 | Graduated Cylinder, 250 mL |
| 20501 | 500 mL Bottle Dispenser for Methanol (0 – 3 mL range) |
| 20600 | 50 mL Bottle Dispenser for Developer (0 – 3 mL range) |
| 20652 | Disposable Plastic Pipets, 1 mL (50) |
| 20700 | Wash Bottle, 500 mL |
| 21010 | Cuvette Rack |

| Cat. No. | Description |
|----------|---|
| 21020 | Single Position Pump Stand † |
| 23040 | Vortex Mixer |
| 31240 | VICAM Fluted Filter Paper, 24 cm (100) |
| 31955 | Microfiber Filters, 1.5 µm, 11 cm (100) |
| 31967 | Kim Wipes |
| 32010 | <i>AflaTest</i> Developer (50 mL) |
| 33020 | Mycotoxin Calibration Standards |
| 34000 | Disposable Cuvettes (250) |
| 35016 | Methanol, HPLC Grade (4 x 4L) |
| 36010 | Disposable Plastic Beakers (25) |
| 36020 | Filter Funnel, 65 mm (10) |
| 36222 | Filter Funnel, 105 mm (4) |

Also required; must be sourced locally:

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 *Afla B*TM products. These analytical methods have been validated in the VICAM laboratories to perform to the specifications indicated in the *Afla B* procedures.

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