

# FumoniStar™

**Immunoaffinity column**  
**Item no. 10001971**

Mycotoxins



## Intended use:

FumoniStar™ immunoaffinity columns contain monoclonal antibodies against fumonisin B1, B2 and B3, which are covalently bound to gel-particles and are intended for the analysis of fumonisins in maize and maize-based products (e.g. cornflakes, polenta).

## Recommended solvents and buffers:

- Extraction solution: 25/25/20 (v/v/v) methanol/acetonitrile/water or 50/50 (v/v) methanol/water (all HPLC grade)
- Dilution: PBS-buffer (10 mM)

### PBS-buffer:

- 8 g NaCl, 1.2 g Na<sub>2</sub>HPO<sub>4</sub>, 0.2 g KH<sub>2</sub>PO<sub>4</sub>, 0.2 g KCl (p.A.)
- dissolve in 990 mL distilled or deionized water
- adjust pH to 7.4 using NaOH (1 M) or HCl (1 M)
- fill up to 1000 mL with distilled or deionized water
- Rinse solution: PBS-buffer (10 mM)
- Eluent: 98/2 (v/v) methanol/glacial acetic acid or 2/1 (v/v) methanol/50 mM Na<sub>2</sub>CO<sub>3</sub> (all HPLC grade)

**All solvents and buffers should be at room temperature (15 – 25 °C).**

**Romer Labs recommends the use of Biopure™ isotope labeled internal standards.**

## Storage:

Always store at 2 – 8 °C (35 – 46 °F) when not in use.  
Do not freeze. Do not use the IAC beyond the expiration date.

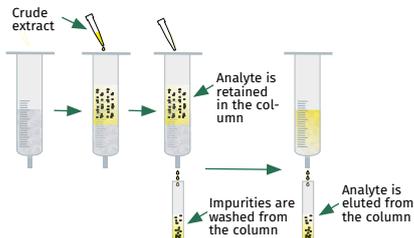
**IMPORTANT:** Download certificate of analysis by scanning the QR code on the external label or by visiting <https://www.romerlabs.com/en/customer-resources/>

## Special Notes for column use:

- StarLine™ IAC contain sodium azide.
- StarLine™ IAC are designed for single use only.
- Application notes for the use of StarLine™ IAC have been developed by Romer Labs and are available on request.

## Disclaimer/Warranty:

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## Procedure

### 1 Extraction

- Weigh 20 g of a representative ground sample (0.5 mm) into suitable container.
- Add 50 mL of extraction solution (e.g. 25/25/50 (v/v/v) methanol/acetonitrile/ water).
- Shake for 20 min on an orbital or gyrotary shaker.
- Centrifuge for 10 min at 2500 g and filter the supernatant through filter paper (avoid transferring solid material on the filter).

### 2 Dilution

- Pipette 10 mL of filtrate into a suitable container.
- Add 40 mL of PBS and mix well.
- Filter the diluted extract through a microfiber filter and collect 10 mL of filtrate (equivalent of 0.4 g sample).

### 3 Sample Application

- The IAC must be at room temperature (15 – 25 °C) for usage!
- It is not necessary to rinse the IAC before applying the extract!
- Apply 10 mL of diluted extract to the IAC.
- Let all extract pass through the IAC with a flow rate of approx. 1 mL/min.

### 4 Rinse

- Rinse the IAC with 10 mL PBS at a flow rate of 1 – 3 mL/min.
- Remove liquid from the column by applying pressure to the top or vacuum to the bottom. The column must not dry out completely!

### 5 Elution

- Place a suitable vial under the FumoniStar™ IAC.
- Use 3.0 mL of 98/2 methanol/glacial acetic acid (v/v) for the elution of bound fumonisins; the eluent should be applied to the column in several small portions (e.g. 3x1.0 mL)!
- Leave the eluent on the column for a few seconds before starting elution to allow intensive contact with the gel.
- Remove any remaining liquid from the IAC by applying pressure at the top or vacuum at the bottom.
- Evaporate the eluate to dryness at approximately 60 °C or less.
- Re-dissolve the residue in a small portion of mobile phase and inject.

You can find worldwide contact information and learn more about our complete line of products for mycotoxin testing on our website.