

# AflaStar™ M1 R

## Immunoaffinity column

Item no. 10001964

Mycotoxins



### Intended use:

AflaStar™ M1 R immunoaffinity columns contain monoclonal antibodies against aflatoxin M1, which are covalently bound to gel-particles and are intended for the analysis of milk and dairy products.

### Recommended solvents and buffers:

- Extraction solution: 80/20 (v/v) methanol/water (+ 15 g celite) (HPLC grade)
- Rinse solution: distilled water or deionized water or 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
- Eluent: methanol (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.

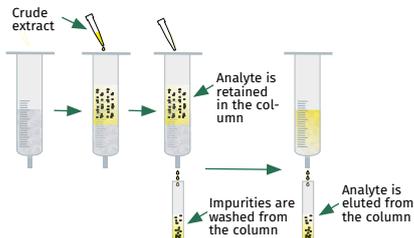
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## Procedure

### 1 Extraction and 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!

#### Solid samples (e.g. cheese)

- Weigh 25 g of a representative ground sample into a suitable container.
- If the sample is butter, melt 25 g of sample in a blender jar and add 15 g celite.
- Add 100 mL of extraction solution (e.g. 80/20 (v/v) methanol/water).

- Blend at high speed for 2 minutes (sugary or oily samples) or shake for 1 hour on an orbital or gyratory shaker.
- Filter extract through a glass microfiber filter.
- Take 10 mL of filtered extract and dilute with 40 mL deionized water.
- Apply the diluted extract to the IAC.

#### Milk/Milk Powder:

- Apply 30 mL of warm milk (30 – 35 °C) or powdered milk solution to the column via a glass microfiber filter.
- Let all extract/liquid sample pass through the IAC with a flow rate of approx. 1 – 3 mL/min.

### 2 Rinse

- Rinse the IAC with 2x10 mL distilled water, deionized water or 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!

### 3 Elution

- Place a suitable vial under the AflaStar™ M1 R IAC.
- Use 1.5 – 3.0 mL of methanol for the elution of bound aflatoxin M1; the eluent should be applied to the column in several small portions (e.g. 3x0.5 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.
- In case of low level contamination the eluent can be dried down and re-dissolved in a small portion of mobile phase (use silanized glasware).
- Inject

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