AflaStar™ FIT

Immunoaffinity column
Item no. 10001962, 10001965

Mycotoxins

Intended use:

AflaStar™ FIT immunoaffinity colums contain monoclonal antibodies against aflatoxin B1, B2, G1 and G2, which are covalently bound to gel-particles and are intended for the analysis of various commodities (e.g. cottonseeds, cereals, peanuts, walnuts, pistachios, spices).

Recommended solvents and buffers:

- Extraction solution: 84/16 (v/v) acetonitrile/water or 60/40 (v/v) acetonitrile/water or 60/40 (v/v) methanol/water (all HPLC grade)
- Dilution: PBS-buffer (10 mM)
  PBS-buffer:
  - 8 g NaCl, 1.2 g Na_2HPO_4, 0.2 g KH_2PO_4, 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: distilled water or deionized water or PBS-buffer (10 mM)
- 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.

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.

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/

Romer Labs®
Making the World's Food Safer

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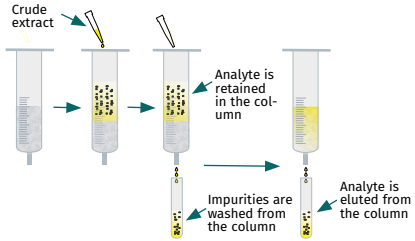

Procedure

1 Extraction

- Weigh 25 g of a representative ground sample (0.5 mm) into a suitable container.
- Add 100 mL of extraction solution (e.g. 86/16 (v/v) acetonitrile/water).
- Blend at high speed for 3 minutes or shake for 1 hour on an orbital or gyratory shaker.
- Centrifuge or filter the supernatant through qualitative filter paper.
- Liquid samples can be diluted directly with PBS or mixed with solvent to obtain the appropriate ratios of the reagent used (e.g. if using 84/16 ACN/H_2O (v/v): 0.640 mL of sample and 3.36 mL of ACN).
- Any solvent content in the sample must be considered in the calculation of the dilution.

2 Dilution

- Dilute the extract with PBS until the content of acetonitrile is not higher than 10 % (v/v). For methanol extracts the content of MeOH can be up to 20 % (v/v).
- Check pH and adjust with NaOH to 6 – 8.

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 the diluted extract to the IAC.
- Let all extract pass through the IAC with a flow rate of approx. 1 – 3 mL/min.

4 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!

5 Elution

- Place a suitable vial under the AflaStar™ FIT IAC.
- Use 1.5 – 3.0 mL of methanol for the elution of bound aflatoxins; 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.

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