

### Intended use:

FolStar™ immunoaffinity columns contain monoclonal antibodies against folic acid, which are covalently bound to gel-particles and are intended for the analysis of various commodities (e.g. vitamin tablets, liquid vitamin preparations, cell culture extracts).

### Recommended solvents and buffers:

- Extraction solution: PBS-buffer (10 mM)
- 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
- Dilution: PBS-buffer (10 mM)
- Rinse solution: PBS-buffer (10 mM)
- Eluent: 99.8/2 (v/v) methanol:phosphoric acid (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.

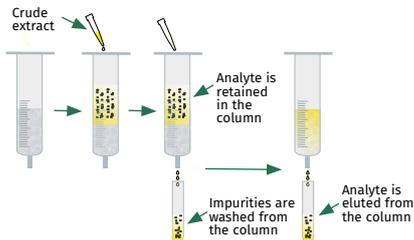
**IMPORTANT:** Download certificate of analysis by scanning the QR code on the external label or by visiting <https://www.romerlabs.com/en/customer-resources/>

### Special Notes for column use:

- StarLine™ IAC contain sodium azide.
- StarLine™ IAC are designed for single use only.

### Disclaimer/Warranty:

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## Procedure

### 1 Sample Preparation

- Folic acid samples should be extracted with the method published by E.S. Osseyi et al. [E.S. Osseyi, R.L. Wehling, J.A. Albrecht J. Chromatogr. A 1998; 826:235-240]. This method applies for vitamin tablets, liquid vitamin preparations and cell culture extracts.
- For example:
  - Weigh 2 g of vitamin containing tablets.
  - Add 50 mL PBS.
  - Filter extract through a 0.45 µm membrane filter.

### 2 Dilution

- 10 mL of extract (containing 0.4 g of sample if above-mentioned sample preparation is followed) are diluted with 30 mL PBS.

### 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 5 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 FolStar™ IAC.

- To elute bound folic acid apply 1 mL of 99.8/0.2 (v/v) methanol/phosphoric acid and wait until it has passed through the column!
- Apply 2 mL of 99.8/0.2 (v/v) methanol/phosphoric acid and let it pass through the column (flow rate 1 – 3 mL/min).
- 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.
- Inject

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