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# AflaCLEAN

## Mycotoxins

### Immunoaffinity Columns for the Aflatoxins B1, B2, G1 and G2



The AflaCLEAN columns are available in the practical 3 mL polypropylene format. The column bed consists of a soft-gel, which is covered by a storage buffer (contains a preservative). The maximum loading capacity is 150 ng B1 absolute.

The minimum shelf life of the columns is 24 months at storage temperature from the date of manufacture. The AflaCLEAN columns can be done manually or automated, for example, with the LCTech robotic system [FREESTYLE SPE](#).

#### Advantages at a Glance

- 3 mL format
- Shelf life: 24 months at room temperature

- Loading capacity: 150 ng aflatoxin B1
- Recoveries: B1 > 90 %, B2 > 80 %, G1 > 90 %, G2 > 60 %
- Suitable for automated processing

## Application Fields and Functionality

The immunoaffinity columns AflaCLEAN are developed for the sample preparation within the food analysis via HPLC with fluorescence detection and LC-MS, respectively. They are designed for the clean-up of aflatoxins B1, B2, G1 and G2 in food and feed. The monoclonal antibody has been specifically designed for this field of application and thus guarantees best results, even with difficult matrices. The columns possess a very high matrix tolerance and are able to bind aflatoxins with a very high specificity. With only three provided extraction protocols, all matrices from A, for Apricot, to Z for Zest, can be tested whilst obtaining excellent recovery rates.

The working mode is based on the principles of immunoaffinity. The material within the columns is covered with antibodies which are directed against B and G aflatoxins. Upon application of a crude extract onto the column, the aflatoxins are retained, whereas the remaining matrix components pass through the column. After a washing step, the aflatoxins can be eluted quantitatively from the column with methanol and subsequently measured with HPLC.

## Quality is important to us!

Since the antibodies as well as the immunoaffinity columns are produced by LCTech, numerous in-house quality tests over the whole production process guarantee a persistent quality. LCTech meets the high demands of European and international legal requirements concerning mycotoxin analysis and controls every single production step. A detailed quality certificate is included in each pack.

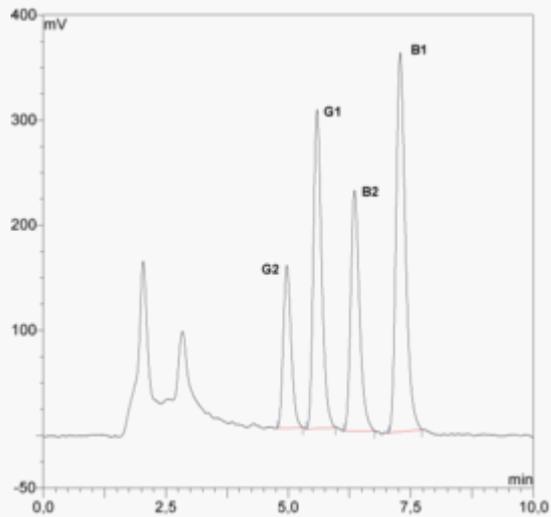
## Recovery Rates

The following recoveries given are customer as well as LCTech data. All matrices are spiked with 10 ppb Aflatoxin (BG). The results correspond to the performance specifications of EC 401 / 2006 (Section 4.3.1):

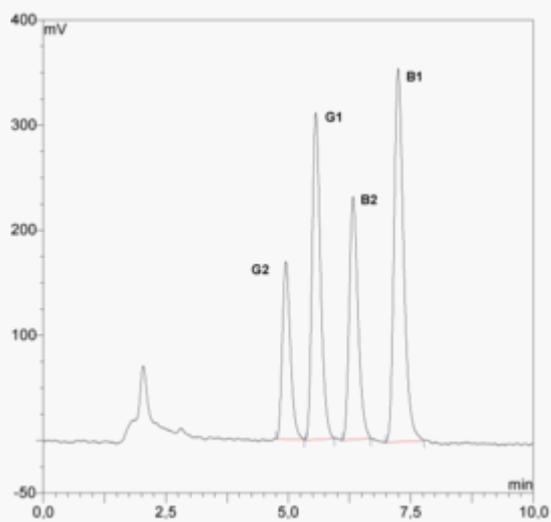
Matrix	B1	B2	G1	G2
Dates	108	96	116	72
Peanut Butter	95	98	93	84
Turmeric	95	95	95	62
Maize Semolina	101	98	103	80
Almonds	91	91	90	79
Pepper (Black)	91	105	99	99
Rice	103	104	104	89

## Chromatograms

In the following some exemplary chromatograms are shown, which were obtained by using AflaCLEAN columns:



*Peanut Butter, spiked with 5 ng Aflatoxin*



*Maize Semolina, spiked with 5 ng Aflatoxin*

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## Prices and presentation

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Information about prices and presentations can be found in the Distributor-Login area.

Upon request to [info@lctech.de](mailto:info@lctech.de), we will be happy to send you your access data.

Would you like it a little faster?

AflaCLEAN SMART for a faster processing of your samples

## Automated sample preparation

[Automated sample preparation via FREESTYLE](#)

## Brochures

[Mycotoxin brochure \( pdf | 3 MB \)](#)

## Poster presentation

[Mycotoxins - Invisible, odourless, yet, an unwanted ingredient in food and feed \( pdf | 791 KB \)](#)

## Publication

[Immunoaffinity SPE with HPLC-FLD detection for the determination of Aflatoxins BG in ground hazelnut \( pdf | 685 KB \)](#)

## Matrix of the month

[AflaCLEAN in our matrix of the month](#)

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