

Matrix of the Month

May, 2013:
**Ochratoxin A
in Poppy Seed**



Do you have a special matrix that we should test for mycotoxins?
Please let us know and write an e-mail to info@LCTech.de!

Protocol

10 g sample are homogenized and mixed with 2 g sodium chloride, 100 mL 80/20 methanol/water and 50 mL n-hexane are added, extraction for 10 minutes.

After filtration the lower phase (n-hexane free) is used.

10 mL + 40 mL PBS are added onto the immunoaffinity column OtaCLEAN.

The column and the sample flask are rinsed with 10 mL water (deionised) and the washing solution is also added onto the column.

The column is dried and eluated with 2 x 1 mL methanol; the methanol should incubate onto the column bed for 5 minutes, the methanolic eluates are diluted to the conditions of the HPLC mobile phase.

HPLC Conditions

HPLC: Dionex Ultimate 3000

Column oven: 40°C

Separation column: Mycotoxin HPLC column EC 120-3 Nucleosil with guard

Flow rate: 0.6 mL/min (40/55/5 + 1% acetic acid) (water/methanol/acetonitrile (v/v/v))

Fluorescence detection without post column derivatisation

Excitation wavelength: 335 nm

Emission wavelength: 465 nm

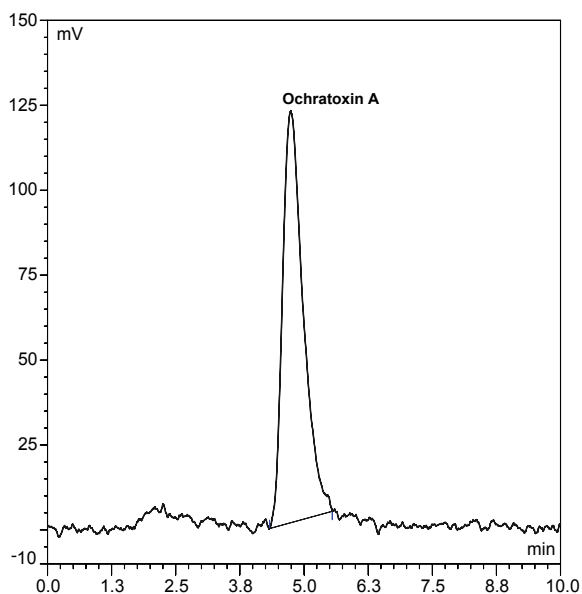
Recovery Rate

Content of Ochratoxin A in Poppy Seed	
	Ochratoxin A
Standard* 10 ppb	100
Recovery rate** Poppy seed	99

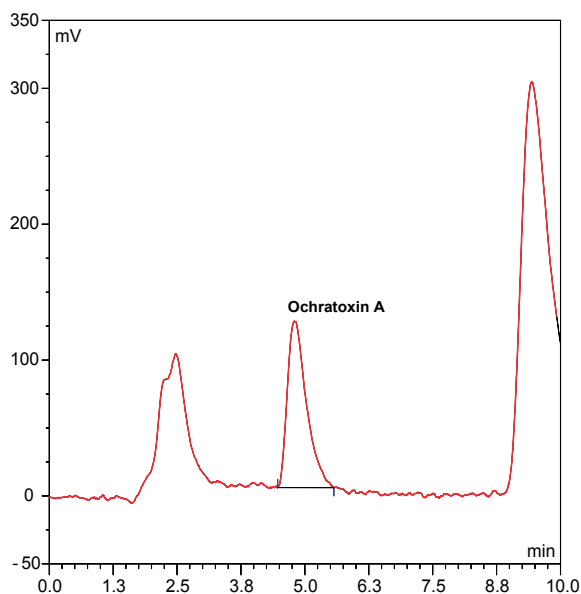
* Standard is set = 100 % , ** corrected with non-spiked sample

Chromatograms

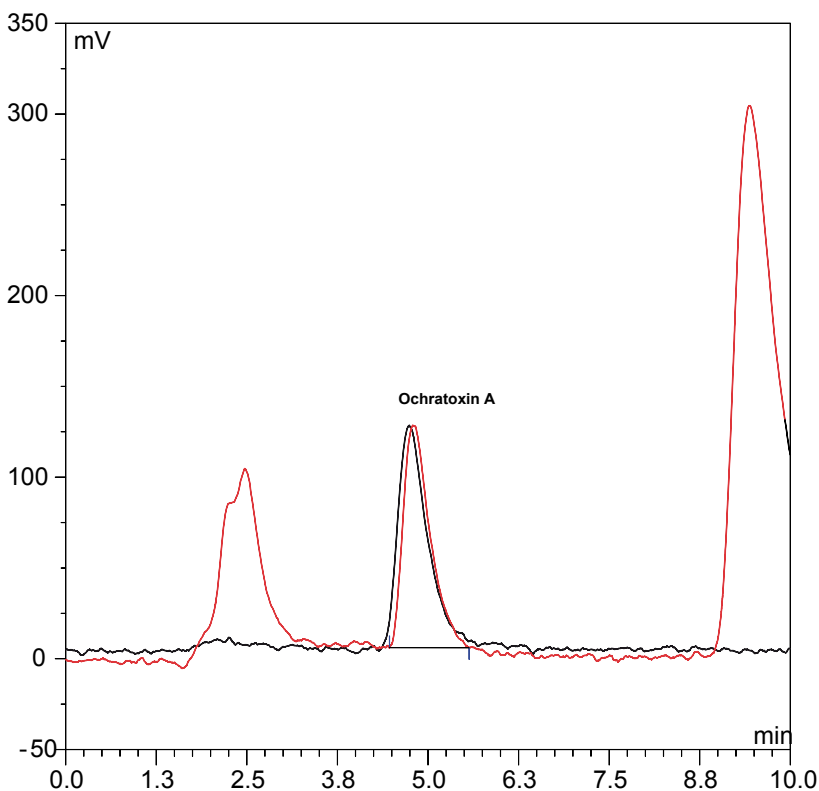
Standard, representing 100 %



Poppy seed, spiked with 10 ppb toxin



Overlay of both chromatograms



This LCTech product was used:

OtaCLEAN,
Immunoaffinity column
for Ochratoxin A

P/N 10515

Do you have further questions?
Please simply write an e-mail to info@LCTech.de