Matrix of the Month

February, 2013:

Ochratoxin A
in Dark Chocolate

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

20 g sample are melted with 2 g sodium chloride, 100 ml 80/20 methanol/water and 50 mL n-hexane are added, stir strongly for 10 minutes.

After filtration the lower phase (n-hexane free) is used, 12 mL with 48 mL PBS are added, filtrated again and 50 ml of it are added onto the immunoaffinity column OtaCLEAN. Then the column is washed with 10 mL water (deionised).

The column is dryed with air and 2 x 1 mL methanol is added to the column (first milliliter methanol should incubate on the column bed for 5 minutes).

The column is closed, without any drop of methanol below the column.
The toxin is eluted and diluted to the condtions of the HPLC mobile phase.

HPLC Conditions

HPLC: Dionex Ultimate 3000, isocratic

Column oven: 36 °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 with post column derivatisation

excitation wavelength: 330 nm

emission wavelength: 465 nm

Recovery Rate

Content of Ochratoxin A in Dark Chocolate

	Ochratoxin A
Standard* 10 ppb	100
Recovery rate** dark chocolate, spiked with 10 ppb	92

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

Chromatograms →

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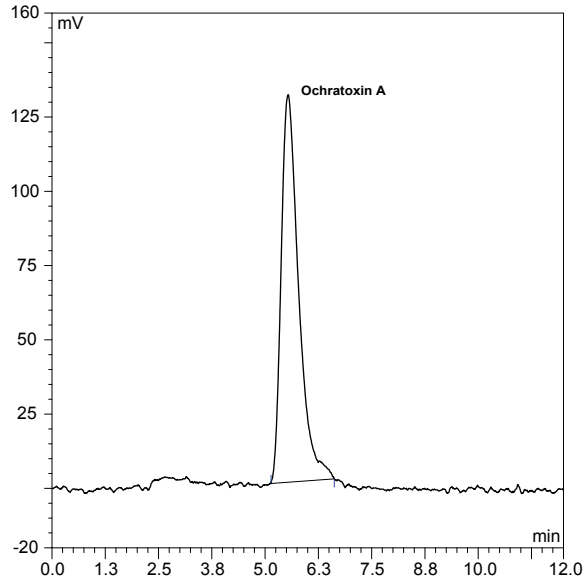
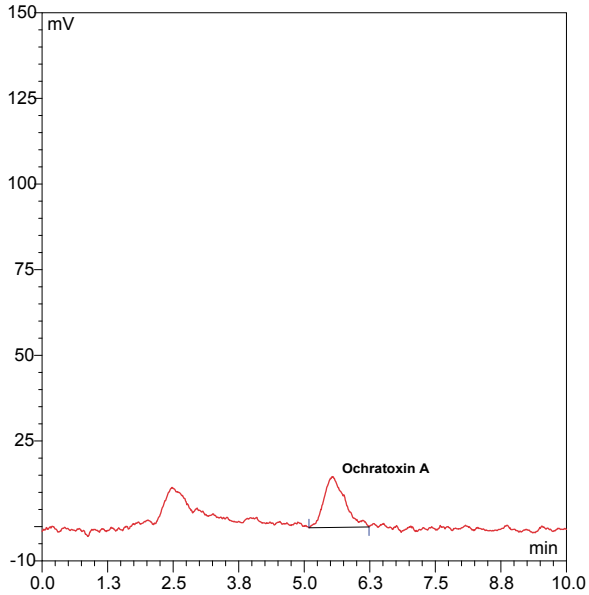
Chromatograms

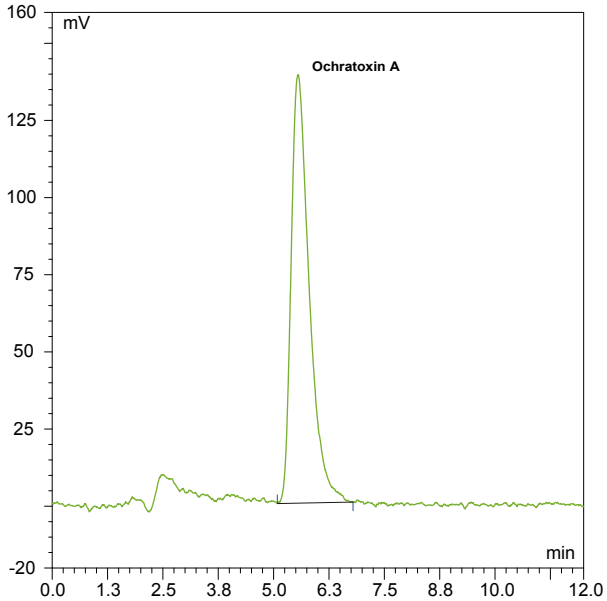
Standard, representing 100 %



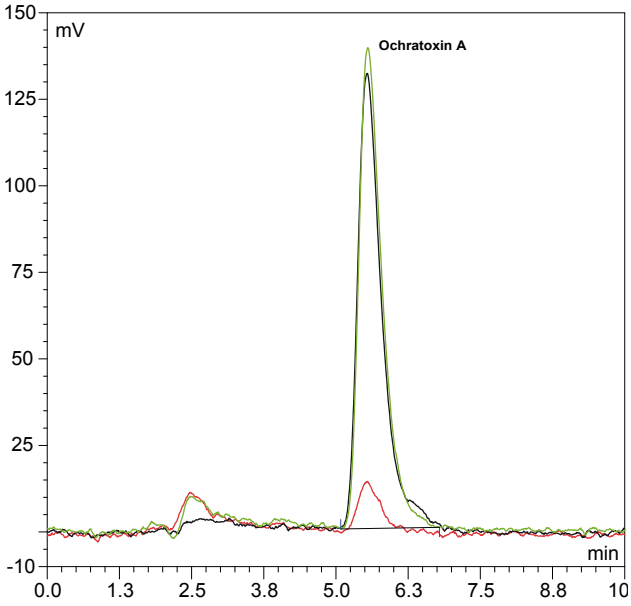
Dark chocolate, non-spiked



Dark chocolate, spiked with 10 ppb



Overlay of the chromatograms



This LCTech product was used:

OtaCLEAN
Immunoaffinity column
for Ochratoxin A

P/N 10515

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

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