Matrix of the Month

November, 2013:

Ochratoxin A
in Nutmeg

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 extracted with 2 g NaCl in 100 mL 80/20 methanol/water with 50 ml n-hexane (10 min) and then filtrated.

The filtrate (2 mL) is diluted with 12 mL PBS buffer containing 8% Tween20 and completely applied onto the immunoaffinity column OtaCLEAN.

The column is washed with 10 ml water, dried and eluted with 2 x 1 ml methanol. The first milliliter methanol should incubate on the column bed for 5 minutes to be sure that the antibody is entirely denaturated.

HPLC Conditions

HPLC: Dionex Ultimate 3000 isocratic
Column oven: 40 °C
Separation column: RP C18
Flow rate: 0.6 mL/min (40/55/5) (water/methanol/acetonitrile (v/v/v) + 0.1% acetic acid)
Excitation wavelength: 335 nm
Emission wavelength: 465 nm

Recovery Rate

Content of Ochratoxin A in nutmeg

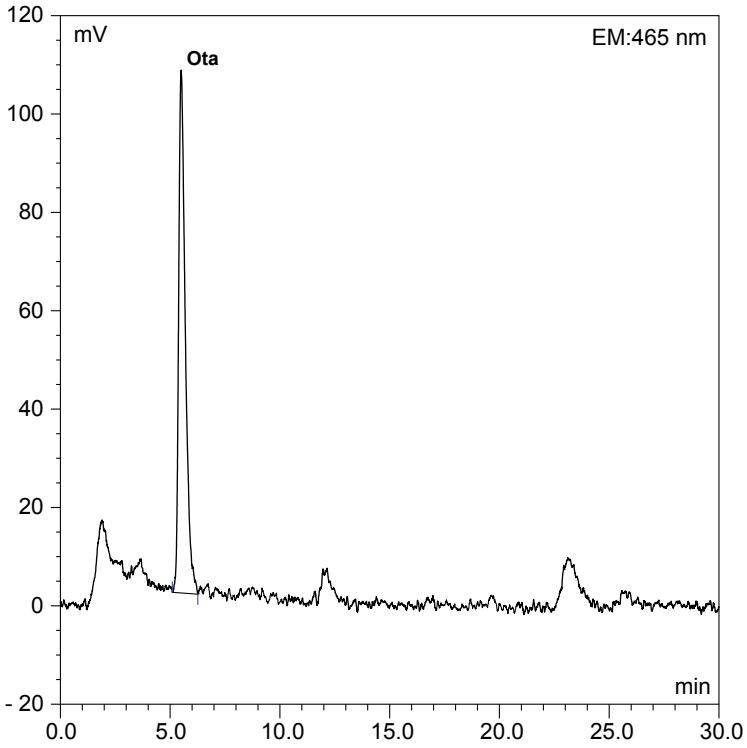
	Ochratoxin A
Standard*	100
Recovery rate** nutmeg, spiked with 10 ppb	91

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

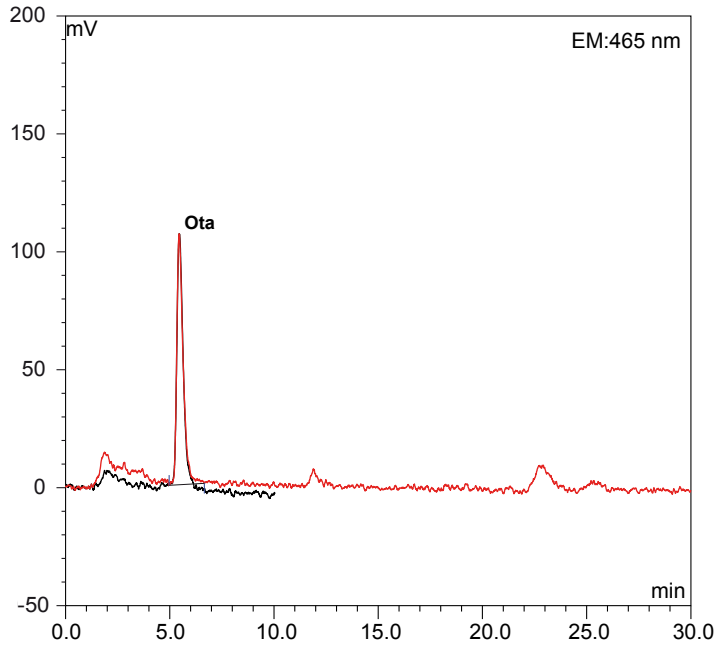
Chromatograms →

Chromatograms

Nutmeg (OTA without post column derivatisation), spiked with 10 ppb



Overlay with standard chromatography



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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