

DETERMINATION OF OCHRATOXIN A IN RED AND WHITE WINE

Regulations for wine:
Europe (EC 1881/2006) : 2µg/L

PROTOCOL OF PURIFICATION

Sample preparation

10mL of wine is diluted with 10mL of HCl solution pH=1, 0.1M. This solution is used as the loading solution.

Purification with a 3mL/100mg AFFINIMIP® SPE Ochratoxin A cartridge

Equilibration

- 4mL Acetonitrile
- 4mL Water

Loading

- 2 to 10mL of loading solution (eq. 1 to 5mL sample)

Washing of interferences

- 7mL 60/40 HCl solution pH 1, 0.1M/ACN

Elution (E)

- 2mL Methanol – 2% Acetic acid

The elution fraction was then evaporated and dissolved in water before HPLC analysis.

HPLC Method with Fluorescence detection

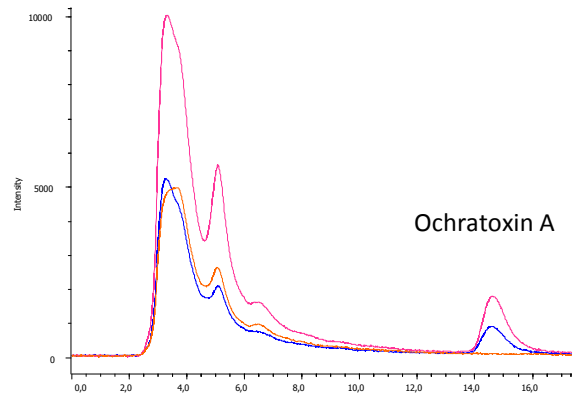
Column: Hypersil Gold C18 column 150mm x 2.1mm
Mobile phase: water/acetic acid/MeOH (39/1/60, v/v)

Flow rate: 0.2mL/min

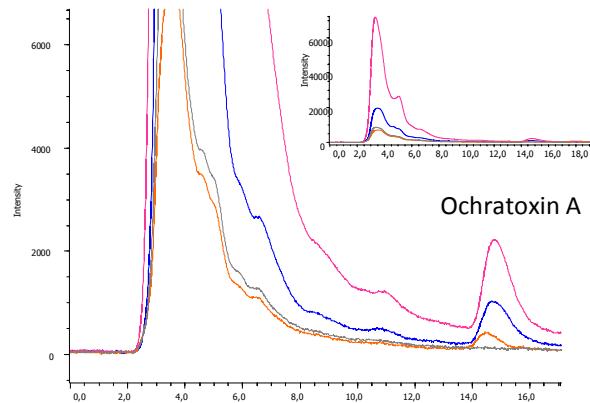
Fluorescence detection: excitation/emission wavelengths: 333 / 460nm

Injection volume: 20µL.

RESULTS



Chromatograms obtained after purification of white wine spiked at 2µg/kg (loading with 5mL (blue); loading with 10mL (pink)) and after a loading of 5mL of not contaminated white wine (orange) with AFFINIMIP® SPE Ochratoxin A



Chromatograms obtained after purification of red wine spiked at 2µg / kg (loading with 2mL (orange); loading with 5mL (blue); loading with 10mL (pink)) and after a loading of 2mL of not contaminated red wine (grey) with AFFINIMIP® SPE Ochratoxin A

Recoveries of Ochratoxin A after AFFINIMIP® SPE Ochratoxin A Clean-up in wine (white and red).

Matrix	C° (µg/kg)	Recoveries %	% RSD
White wine (n=10)	2	91.3	6.2
Red wine (n=4)	2	78.8	2.8

Catalog number:

FS101-02 for 25 cartridges

FS101-03 for 50 cartridges