

DETERMINATION OF PATULIN IN ALCOHOL POMMEAU AND LIQUOR

Regulations for apple based beverage :
Europe (EC 1881/2006) : 50µg/Kg

Manzella liquor contains 20% alcohol and 2.1% of concentrated apple juice.
Alcohol Pommeau is a mixture of Calvados and Apple Juice. It contains 17% Alcohol.

PROTOCOL OF PURIFICATION

Sample preparation

To 1mL of Manzella Liquor or Alcohol Pommeau, add 2mL Water to obtain the loading solution.

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

Equilibration

- 2mL Acetonitrile
- 1mL Water

Loading

- 3mL of loading solution

Washing of interferences (W1)

- 3mL Water (containing 2% Acetic Acid for AA W1 protocol)

Drying by applying vacuum 10 seconds

Washing of interferences (W2)

- 250µL Diethyl Ether

Drying by applying vacuum 10 seconds

Elution (E)

- 2mL Ethyl Acetate

The elution fraction was then evaporated and dissolved in water containing 0.1% acetic acid before HPLC analysis.

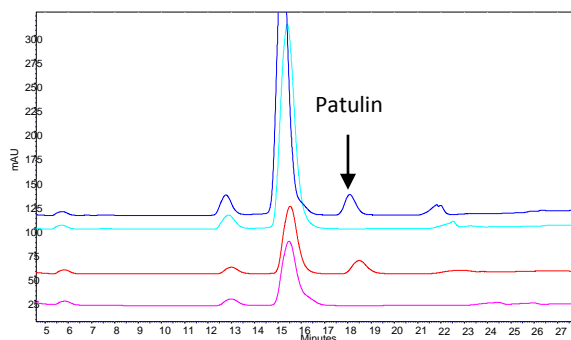
HPLC Method

Column: Atlantis T3 column, 150mm x 2.1mm
Mobile phase: gradient profile

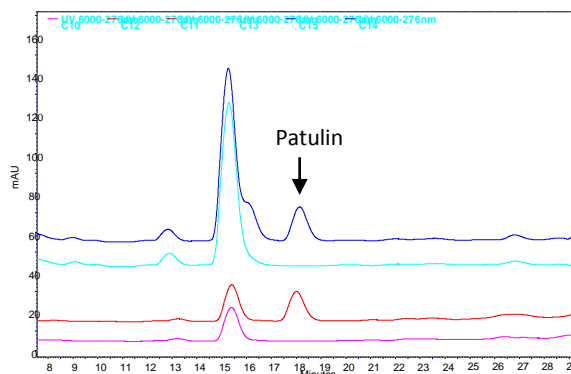
Time (min)	% water	% ACN
0	98	2
20	98	2
21	50	50
25	50	50
26	98	2

) Flow rate: 0.2mL/min
Detection: UV - 276nm
Injection volume: 100µL.

RESULTS



Chromatograms obtained after **AFFINIMIP® SPE Patulin** Clean-up of Manzella liquor spiked at 40µg/L with Patulin (dark blue for Water in W1 and red for Water -AA in W1) or not spiked (light blue and pink). Washing with Acetic acid is more efficient.



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Recovery yields obtained for Pommeau and Manzella after **AFFINIMIP® SPE Patulin** Clean-up. W1 with water or Water -2%Acetic acid

	Water for W1		Water-AA for W1	
Pommeau	101	101	90	93
Manzella	102	106	87	90

Catalog number:

3mL-100mg sorbent

- FS102-02 for 25 cartridges
- FS102-03 for 50 cartridges
- FS102-02K for a kit of 25 cartridges + 50mL Pectinase
- FS102-03K for a kit of 50 cartridges + 50mL Pectinase
- REA-001-50mL for 50mL Pectinase solution