

**DETERMINATION OF PATULIN IN BABY FOOD APPLE JUICE**

**Regulations for apple juice:**  
 Europe (EC 1881/2006) : 50µg/Kg  
 USA (FDA CPG Sec.510.150) : 50µg/Kg  
**Regulations for apple juice for infants and young children:**  
 Europe (EC 1881/2006) : 10µg/Kg

**PROTOCOL OF PURIFICATION**

**Sample preparation**

Loading solution: 2.5mL apple juice and 2.5mL of water-2% acetic acid are mixed.

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

**Equilibration**

- 2mL Acetonitrile
- 1mL water

**Loading**

- 4mL of loading solution

**Washing of interferents (W1)**

- 1mL NaHCO<sub>3</sub>
- 2mL Water

**Drying by applying vacuum 10 seconds**

**Washing of interferents (W2)**

- 1mL Diethyl Ether

**Elution (E)**

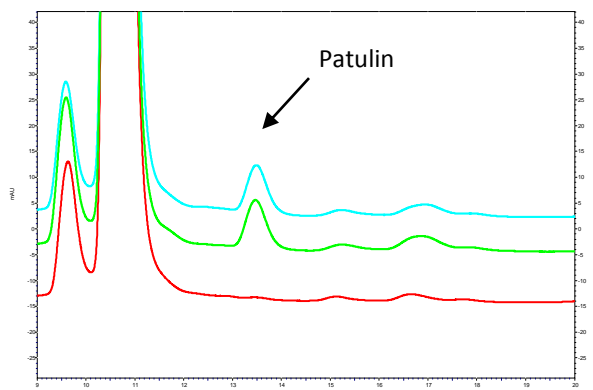
- 2mL Ethyl Acetate

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: Deionized water/ACN (95/5, v/v)  
 Flow rate: 0.2mL/min  
 Detection: UV - 276nm  
 Injection volume: 100µL.

**RESULTS**



Chromatograms obtained after **AFFINIMIP® SPE Patulin** Clean-up of an apple juice spiked at 10µg/kg with Patulin (Green and blue) or not spiked (Red)

Recovery of Patulin (n=9) at a contamination level of 10µg/kg in apple Juice after **AFFINIMIP® SPE Patulin** Clean-up.

Recoveries % (n=9)	% RSD <sub>R</sub>
97.9	11

**Catalog number:**

- 3mL-100mg sorbent for most uses**  
 FS102-02 for 25 cartridges  
 FS102-03 for 50 cartridges
- 6mL-200mg sorbent for a DRIED APPLE or higher enrichment with apple juice**  
 FS102-02B -200mg for 25 cartridges  
 FS102-03B -200mg for 50 cartridges