

DETERMINATION OF CHLORAMPHENICOL IN MILK

PROTOCOL OF PURIFICATION

Sample preparation

Milk is centrifuged for 15 minutes at 5000 rpm. Collect the liquid layer below the upper lipid layer to obtain the loading solution.

Purification with a 1mL or 3mL AFFINIMIP® SPE Chloramphenicol cartridge

Equilibration

- 2mL Acetonitrile
- 2mL Water

Loading solution

respectively 1mL/3mL for 1mL/3mL cartridge

Washing of interferences

- 2mL Water
- 1mL (deionized Water-0.5% Acetic Acid) /Acetonitrile (95/5, v/v)
- 2mL of (1% Ammonia in water) /Acetonitrile (80/20, v/v)

Drying

- 250µL diethyl Ether and apply vacuum during 10 seconds

Elution (E)

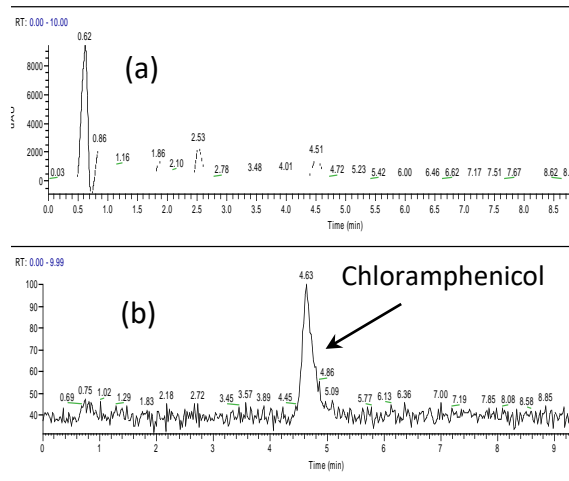
2mL Methanol

The elution fraction was then concentrated and diluted to 1mL before HPLC analysis.

HPLC Method with LC-MS

HPLC Column: Thermo Accucore C18 50mm x 2,1mm, 2,5µm
 Mobile phase: Ammonium Acetate 10mM in water/Methanol (75/25, v/v)
 Flow rate: 0.2mL/min
 Injection volume: 20µL.
 Detector: ESI⁻

RESULTS



(a) UV (278nm) and (b) SIMS (m/z 322) Chromatograms obtained after clean-up with AFFINIMIP® SPE Chloramphenicol

Recovery of Chloramphenicol spiked at 22µg/kg after AFFINIMIP® SPE Chloramphenicol clean-up of 3mL of milk and relative standard deviation calculated from results generated under **repeatability conditions** (n=5).

C° (µg/kg)	Recoveries %	% RSDr
22,0	89	2,6

Catalog number:

1mL sorbent in a PP cartridge

FS110-03A for 50 cartridges

3mL sorbent in a PP cartridge

FS110-03 for 50 cartridges