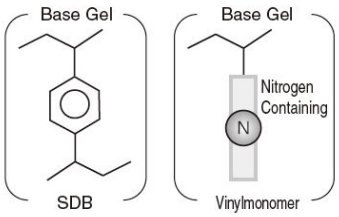
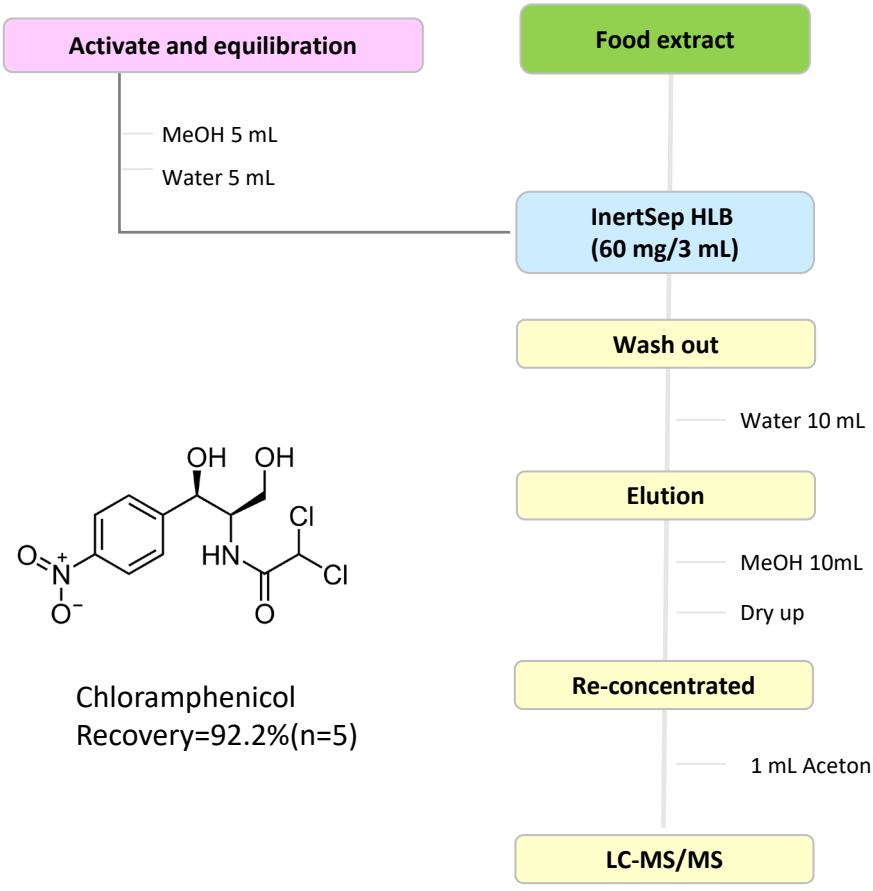
InertSep HLB, InertSep HLB FF applications

Specifications

Structure of the gel	Physical properties	InertSep HLB	InertSep HLB FF
	Average particle diameter (μm)	30	60
	Surface area (m^2/g)	720	
	Pore volume (mL/g)	1.3	
	Fine pore size (nm)	7	
	pH range of use	1-14	

InertSep HLB is a composite polymer solid phase of N-containing vinyl polymer and styrene divinylbenzene. By optimizing the balance between hydrophobicity and hydrophilicity with our unique synthetic technology, we have made it possible to retain and elute a wide range of polar compounds.

Purification of Chloramphenicol from honey



Chloramphenicol
Recovery=92.2%(n=5)

Recovery for Nucleic acid medicine

Activate and equilibration

- acetonitrile 800 µL
- 1 mol/L TEAA（pH 11）800 µL

Mixed sample

- Matrix(Serum) 100 µL
- Nucleic acid medicine 2 µL
- 1 mol/L TEAA（pH 11）100 µL

InertSep HLB (30 mg/1 mL)

Wash out

- Water 800 µL two times

Elution

- 50 vol% acetonitrile aqueous solution 300 µL
- Dry up at 50 ℃

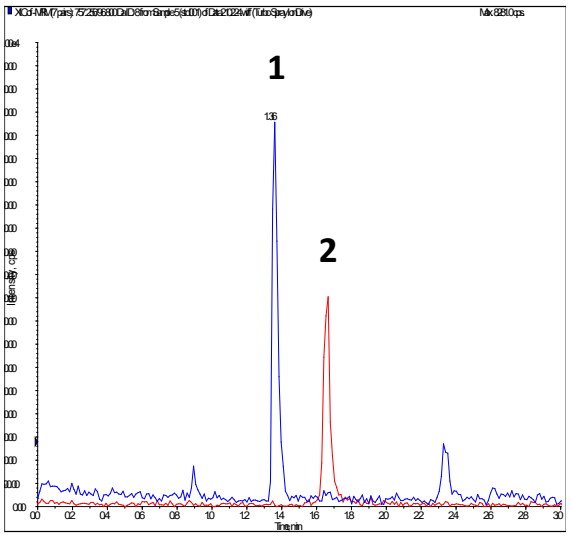
Re-concentrated

- 0.05 vol% TEA aqueous solution 100 µL

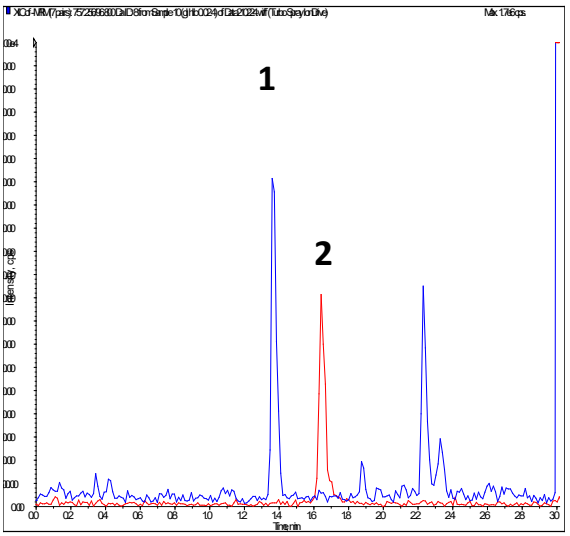
LC-MS/MS

Recovery for Nucleic acid medicine

STD



Extraction form serum

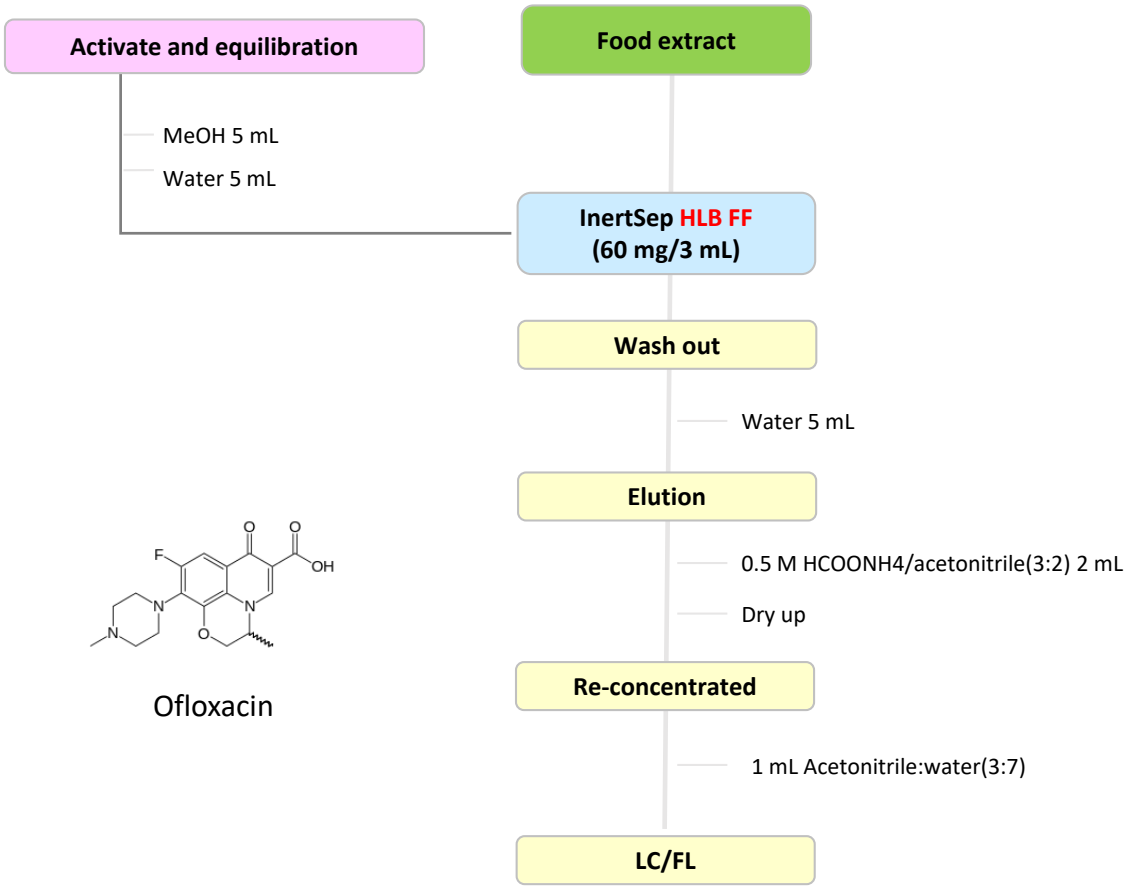


1. tccatgacgttcctgatgct Q1/Q3 = 865.3/96.8

2. t^c^c^a^t^g^a^c^g^t^t^c^c^t^g^a^t^g^c^t^ Q1/Q3 = 706.1/94.9

^= phosphorothioated

Purification of Quinolones form meat sample



Ofloxacin

Recovery of Quinolones using InertSep HLB FF

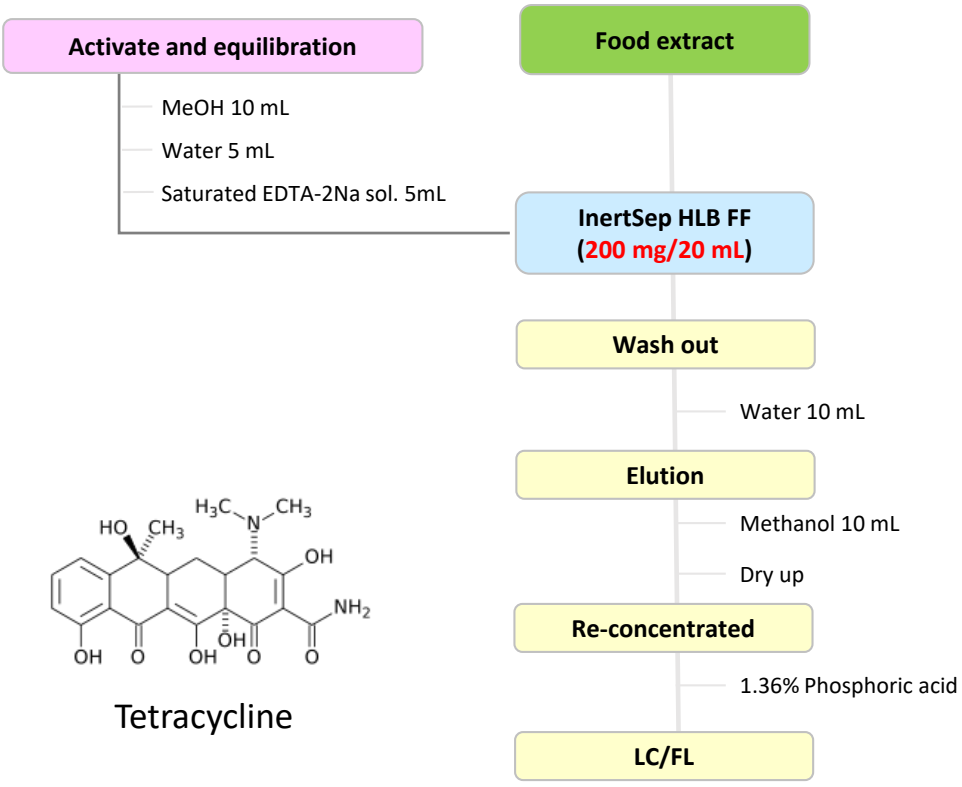
Sample	Recovery(%)			Average[%]	RSD(%)
	1	2	3		
Ofloxacin	103	103	100	102	2
Ciprofloxacin	103	104	100	102	2
Enrofloxacin	101	101	98	100	2
Orbifloxacin	96	96	93	95	2
Nalidixic acid	97	98	92	96	3

Time required for sample load(Large particle effect)

InertSep HLB FF(**60um**) 60mg/3mL : only 5min !

Other bland HLB (**30um**) 60mg/3mL : 1hr and column clogging

Purification of tetracycline form chicken



Recovery of tetracycline using InertSep HLB

Sample	Recovery(%)			Average[%]	RSD(%)
	1	2	3		
Oxytetracycline	93	94	97	95	2
Tetracycline	93	97	97	96	3
Chlortetracycline	100	104	101	102	2

For pretreatment of clogging-prone samples

Clogging due to viscosity and residue can be a problem when handling food extractions. Our 20 mL InertSep HLB FF reservoir eliminates "clogging" problems that occur when using a 6 mL reservoir, Overall improving work efficiency.