

Extraction of Antihistamines from Urine using Strata™ X-C

SPE method:*

Condition: 1mL methanol;

Equilibrate: 1mL deionized H₂O

Load: 1mL urine (dilute it with water 1:1, acidified with 2% H₃PO₄) spiked with 0.8 µg/mL of chlorpheniramine, triprolidine (IS), diphenhydramine.

Wash 1: 1mL 0.1 N HCl

Wash 2: 1mL methanol

Wash 3: 1mL methanol/H₂O (1:1, v:v) + 0.6% NH₄OH

Dry: 1 min at 10" of Hg

Elute: 1mL 5% NH₄OH/methanol

Blow down to almost dryness and reconstitute to 200µL with mobile phase

Inject: 50µL on HPLC

***Note: the solvent volumes shown above are for a 30mg bed mass. The solvent volumes will need to be adjusted for a smaller or larger bed mass.**

HPLC Condition:

Column: Synergi Max-RP, 4µ, 80Å, 150x4.6mm, UV = 210nm

Mobile Phase A: 20mM KH₂PO₄ (pH 2.5), B = ACN

Time (min)	%B	Flow (mL/min)
0	10	1.5
3	10	1.5
4	25	1.5
13	25	1.5

% Recovery

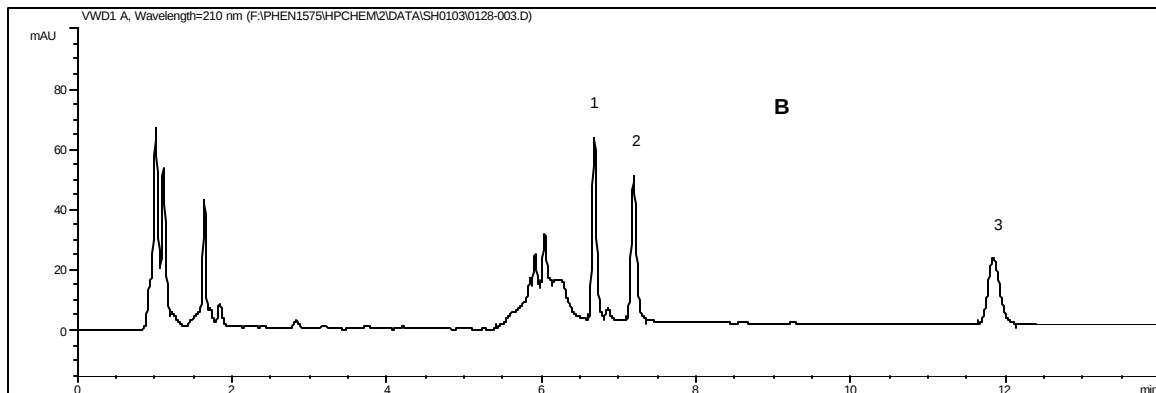
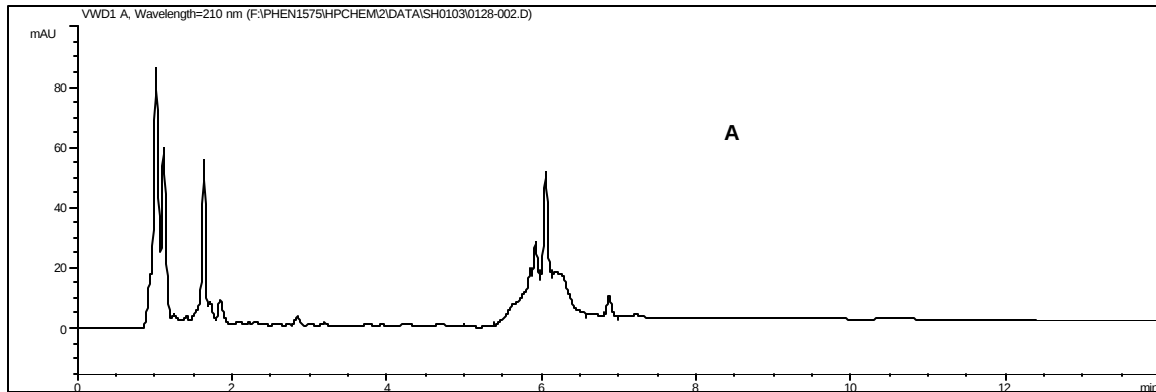
	Strata-X-C	% RSD
Chlorpheniramine	97	1.56
Diphenhydramine	102	1.99

Ordering Information

Order Number	Description
8B-S029-TAK	strata-X-C 30mg/1mL Tubes (100/Box)
8B-S029-UBJ	strata-X-C 60mg/3mL Tubes (50/Box)
8B-S029-ECH	strata-X-C 100mg/6mL Tubes (30/Box)
8B-S029-FCH	strata-X-C 200mg/6mL Tubes (30/Box)
8B-S029-HCH	strata-X-C 500mg/6mL Tubes (30/Box)
8E-S029-AGB	strata-X-C 96-Well Plate 10mg/well (2/Box)
8E-S029-TGB	strata-X-C 96-Well Plate 30mg/well (2/Box)

* This method is designed as a convenient starting point for further investigation. This method can be tailored to meet your extraction goals. Phenomenex makes no guarantee regarding the accuracy or completeness of the method.

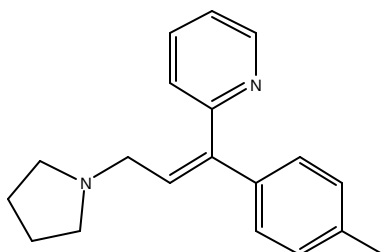
Chromatogram of Urine Extracts by strata-X-C: A) Blank B) Spiked sample



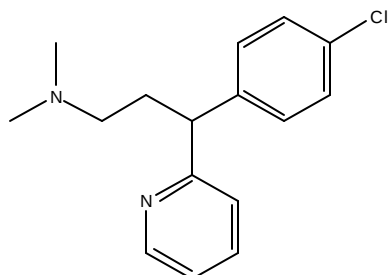
1. Chlorpheniramine
2. Triprolidine (IS)
3. Diphenhydramine

Structure of Non Polar Antihistamines

Chlorpheniramine



Tripolidine



Diphenhydramine

