

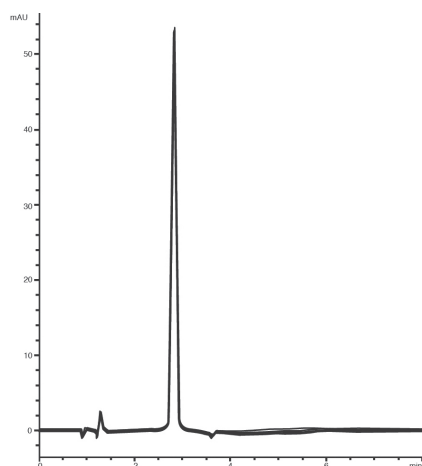
Applications of Cogent TYPE-C™ Columns

Pharmaceutical Applications

For many other Pharmaceutical applications go to www.mtc-usa.com and click on Knowledge Base.

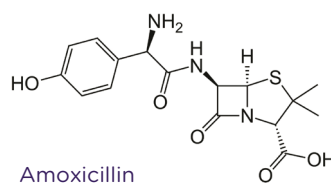
Amoxicillin Assay – Orthogonal Method on USP Assay

Figure 64.



Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 1 00Å
Catalog No.: 70000-7.5P
Dimensions: 4.6 x 75mm
Mobile Phase: A: DI water + 10mm ammonium acetate
 B: 90% Acetonitrile/ 10% DI water/
 10mm ammonium acetate

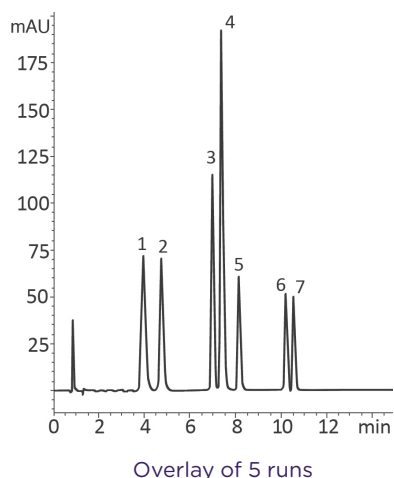


Gradient:	time (min.)	%B
	0	100
	4	90
	5	100

Injection vol.: 2µL
Flow rate: 1.0mL/min
Detection: UV 230nm
Sample: Stock Solution: 1mg/mL amoxicillin trihydrate USP RS in 50/50 A/B diluent.
Working Solution: A 100µL aliquot of the stock was diluted to 0.1mg/mL using 900µL 50/50 A/B diluent

Cough Syrup Ingredients

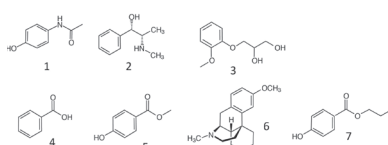
Figure 65.



Method Conditions

Column: Cogent Phenyl Hydride™, 4µm, 1 00Å
Catalog No.: 69020-7.5P
Dimensions: 4.6 x 75mm
Mobile Phase: A: DI H₂O / 0.1% TFA (v/v)
 B: Acetonitrile/ 0.1%TFA (v/v)

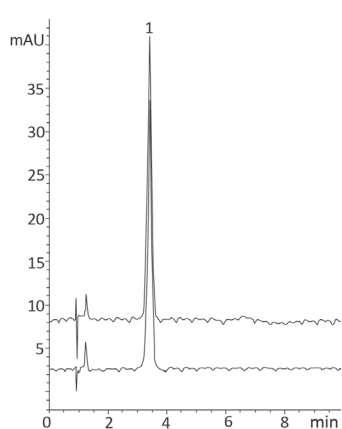
Gradient:	time (min.)	%B
	0	5
	2	5
	11	50
	12	5



Post Time: 3 min
Injection vol.: 2µL
Flow rate: 1.0mL/min
Detection: UV 210nm (0-6 min), 230nm (6-15 min)
Sample: Stock Solution: 1mg/mL solutions of each analyte were made using a 50/50 solvent A/ solvent B diluent (v/v).
Working Solution: 0.1mg/mL dilutions were made of the stock solutions and used for peak identity confirmations. A 0.1mg/mL mixture of all the analytes was also made from the stock solutions.
Peaks: 1. Acetaminophen
 2. Pseudoephedrine
 3. Guaifenesin
 4. Benzoic Acid
 5. Methyl Paraben
 6. Dextromethorphan
 7. Propyl Paraben

Cetylpyridinium Chloride by ANP

Figure 66.



Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 1 00Å
Catalog No.: 70000-7.5P
Dimensions: 4.6 x 75mm
Mobile Phase: 4% DI H₂O / 96% Acetonitrile/ 0.1% TFA (v/v)
Injection vol.: 2µL
Flow rate: 1.0mL/min
Detection: UV 215nm
Sample: 1mg cetylpyridinium chloride USP reference standard was dissolved in 1mL of 50/50/0.1 DI water/acetonitrile/formic acid. This stock solution was diluted 1:10 for HPLC injections using the same diluent.
Peak: 1. Cetylpyridinium chloride

