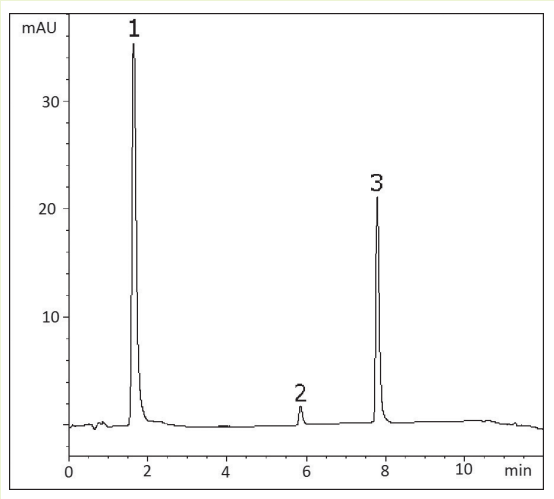
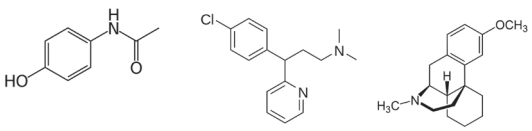
Coricidin HBP Night® Tablet

Acetaminophen, dextromethorphan, and chlorpheniramine





Samples: Coricidin High Blood Pressure (HBP) Night® tablet containing 500mg acetaminophen, 15mg dextromethorphan HBr, and 2mg chlopheniramine maleate was ground and added to a 50mL volumetric flask. A portion of 50/50 solvent A/solvent B was added and the flask was sonicated 10 min. Then it was diluted to mark and mixed well. A portion was filtered with a 0.45µm nylon syringe filter (MicroSolv Tech Corp.). This filtrate was used for injections. The peak identities were confirmed with individual standards.

Method Conditions

Column: **Cogent Phenyl Hydride 2.ō™**, 2.2µm, 120Å

Catalog No.: 69220-05P-2

Dimensions: 2.1 x 50 mm

Mobile Phase: A: DI H_2O / 0.1% TFA (v/v)
B: Acetonitrile / 0.1% TFA (v/v)

Gradient:

time (min.)	%B
0	5
2	5
9	80
11	80
12	5

Post Time: 5 min

Injection vol.: 1µL

Flow rate: 0.3 mL/min

Detection: UV 310 nm (0-2 min), 265 nm (2-12 min)

Peaks: 1. Acetaminophen
2. Chlorpheniramine
3. Dextromethorphan

t_0: 0.7 min

Discussion

This method demonstrates the potential of the Cogent Phenyl Hydride 2.ō column for analysis of amine-containing analytes in a real formulation. Chlorpheniramine and dextromethorphan can be often problematic in terms of peak tailing due to the tertiary amines, but the Cogent Phenyl Hydride 2.ō produces excellent peak shapes for both compounds in this tablet formulation.

A high UV wavelength of 310 nm was chosen at the beginning of the gradient in order to reduce the acetaminophen peak height, since this analyte is present in much higher concentration than the other two.

MANUFACTURED BY:
MICROSOLV TECHNOLOGY CORPORATION
9158 Industrial Blvd NE
Leland, NC 28451
p: 1.732.380.8900
f: 1.910.769.9435
customers@mtc-usa.com
www.Cogent-HPLC.com