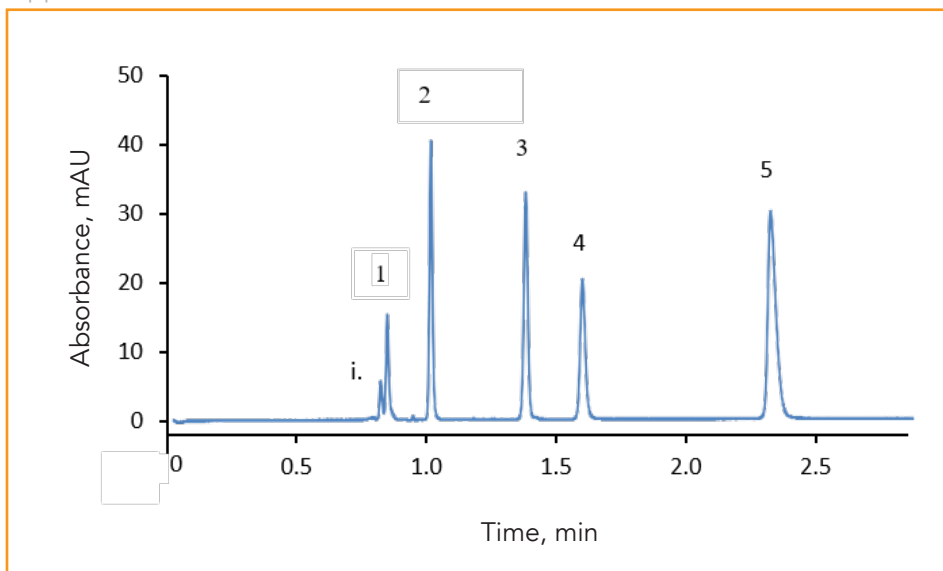




Separation of OTC Common Cold Medicinal Compounds

Application Note 152-CM



PEAK IDENTITIES:

1. Maleic acid
2. Acetaminophen
3. Guaifenesin
4. Chlorpheniramine maleate
5. Dextromethorphan HBr
- i. Impurity from Dextromethorphan HBr

Acetaminophen (analgesic), guaifenesin (expectorant), chlorpheniramine maleate (antihistamine), and dextromethorphan (cough suppressant) are common compounds found in many over-the-counter (OTC) cold medicines. A HALO 90 Å, C18 2.7 μm column is used to separate these compounds quickly and accurately under isocratic conditions.

TEST CONDITIONS:

Column: HALO 90 Å C18, 2.7 μm,
4.6 x 150 mm

Part Number: 92814-702

Mobile Phase:

A: 50 mM potassium phosphate buffer,
pH 2.5

B: Acetonitrile

Isocratic: 30% B

Flow Rate: 1.5 mL/min

Pressure: 266 bar

Temperature: 45 °C

Detection: UV 220 nm, PDA

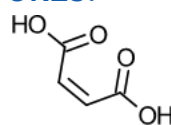
Injection Volume: 0.5 μL

Acquisition Rate: 40 Hz

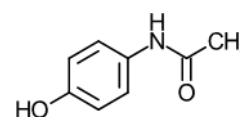
Flow Cell: 2.5 μL semi-micro

LC System: Agilent 1200 SL

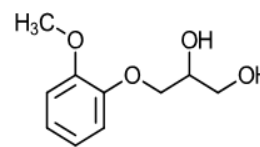
STRUCTURES:



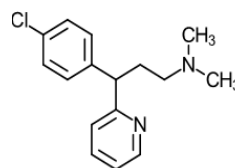
Maleic Acid



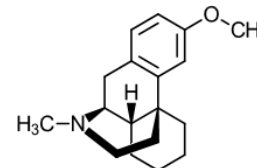
Acetaminophen



Guaifenesin



Chlorpheniramine Maleate



Dextromethorphan HBr

