

Guaifenesin and Related Substances (USP)

Purospher® STAR RP-18 endcapped

Chromatographic Conditions

Column: Purospher®STAR RP-18 endcapped (5µm) Hibar® RT 250x4.6 mm

1.51456.0001

Injection: 10 µL

Detection: UV 276 nm

Cell: 8 µL

Flow Rate: 1.0 mL/min

Mobile Phase: Solution A: Glacial acetic acid and water (10:990)

Solution B: Acetonitrile

Gradient: See Table:

Temperature: 30° C

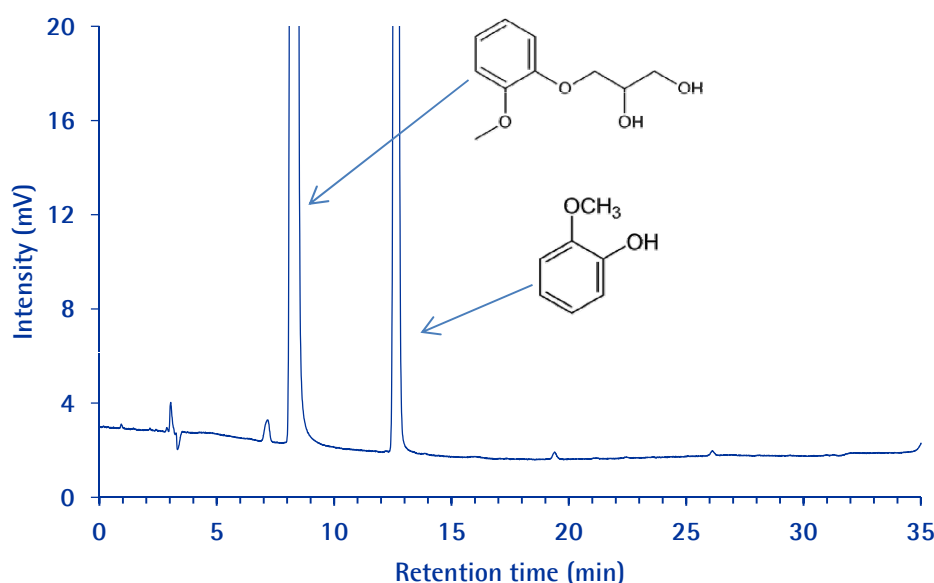
Diluent: mobile phase

Sample: 500 ppm (0.5 mg/mL) Guaiphenesin and 20 ppm (0.02 mg/mL) Guaiacol

Pressure: 142 Bar (2059 psi)

Drop:

Time (min)	A (%)	B (%)
0-32	80→50	20→50
32-35	50→80	50→20



Chromatographic Data

No.	Compound	Time (min)	(T _{USP})	Relative Retention Time (RRT)	Resolution
1	Guaifenesin beta isomer	7.2	1.0	0.9	
2	Guaifenesin	8.3	1.0	1.0	
3	Guaiacol	12.6	1.1	1.5	4.8