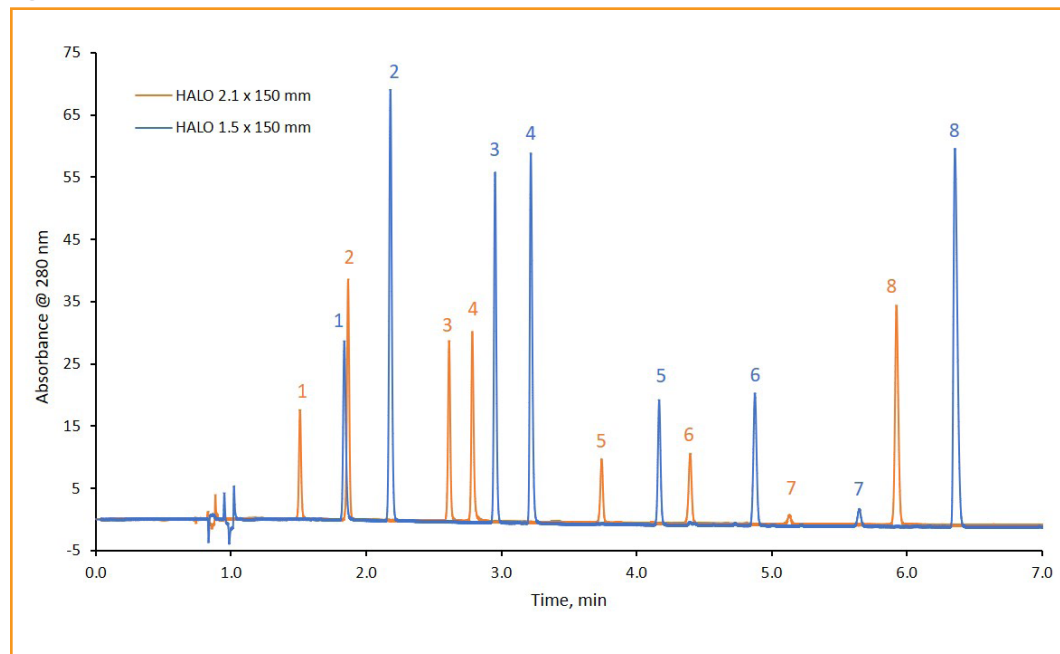




Increased Sensitivity in Small Molecule Applications with Cough & Cold Medications

287-P



PEAK IDENTITIES

1. Phenylephrine
2. Acetaminophen
3. Caffeine
4. Doxylamine
5. Guafenesin
6. Aspirin
7. Salicylic Acid
8. Dextromethorphan

TEST CONDITIONS:

Column: HALO 90 Å C18, 2.7 µm, 1.5 x 150 mm

Part Number: 9281X-702

Column: HALO 90 Å C18, 2.7 µm, 2.1 x 150 mm

Mobile Phase A: Water/ 0.15% TFA

Mobile Phase B: ACN/ 0.1% TFA

Gradient:	Time(min)	%B
	0.0	5
	8.0	50
	9.0	100
	9.5	5
	13.0	5

Flow Rate: 0.2 mL/min for 1.5 mm
0.4 mL/min for 2.1 mm

Pressure: 425 bar/1.5 mm
470 bar/2.1 mm

Temperature: 35 °C

Detection: UV 280 nm, PDA

Injection Volume: 0.5 µL

Data Rate: 100Hz

Response Time: 0.025 sec.

Flow Cell: 1 µL

Instrument: Shimadzu Nexera X2

A separation of eight different small molecules commonly found in cough and cold medicines is performed on a HALO 90 Å C18 column. The comparison shown on the chromatogram illustrates the overall increase in sensitivity when switching from a larger ID column to the smaller 1.5 mm ID column. Extra column volume was reduced by optimizing the post-column tubing. This increase in sensitivity is seen in peak height and area counts, making the switch to a 1.5 mm column ideal for those trying to get more sensitivity out of their UHPLC system without the investment into a micro flow HPLC system.

