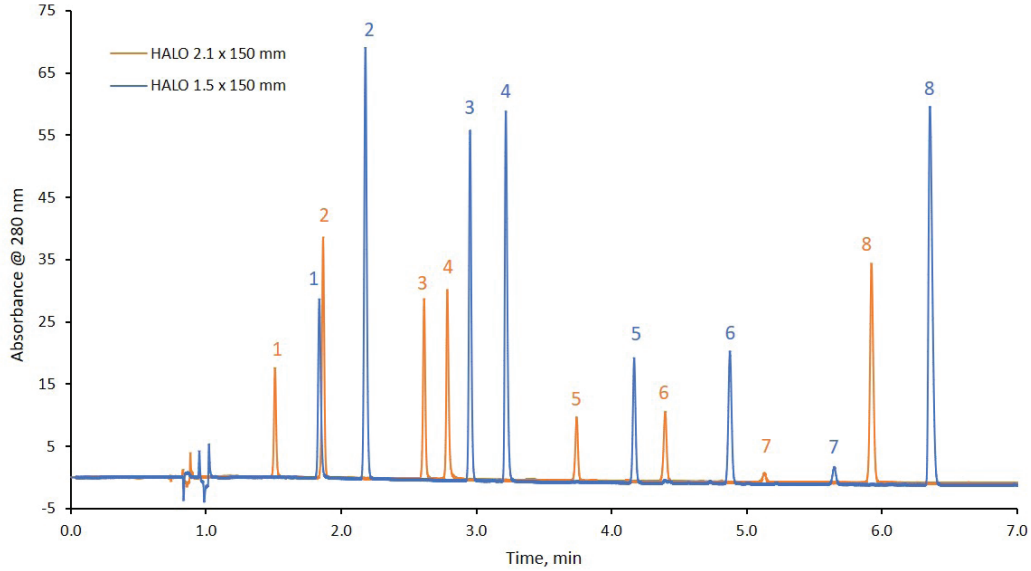
HALO®

PHARMACEUTICALS

# Increased Sensitivity in Small Molecule Applications with Cough & Cold Medications

287-P




## PEAK IDENTITIES

1. Phenylephrine
2. Acetaminophen
3. Caffeine
4. Doxylamine
5. Guiafenesin
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.



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