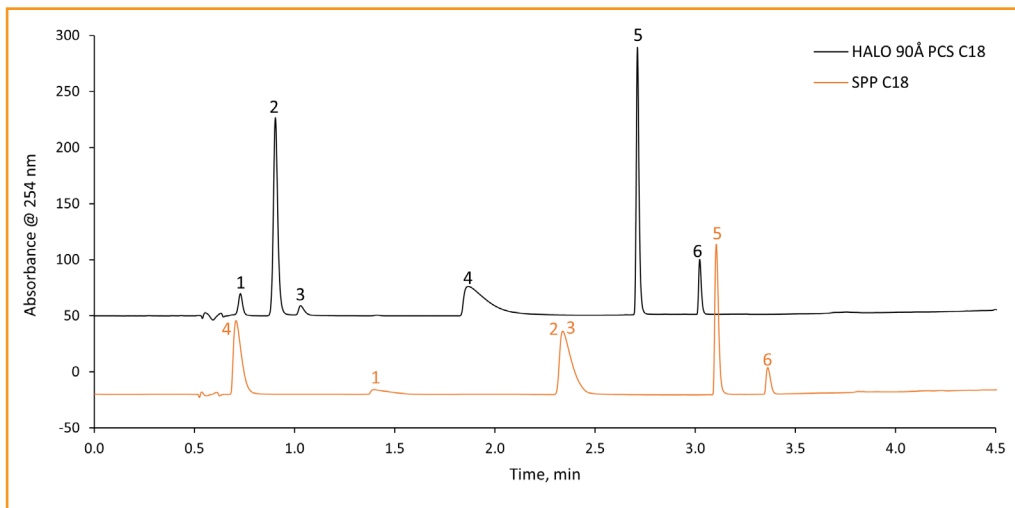




## Separation of Amine Based Medications on HALO® PCS C18

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### PEAK IDENTITIES:

1. Pseudoephedrine
2. Doxylamine
3. Scopolamine
4. Maleic Acid
5. Chlorpheniramine
6. Diphenhydramine

### TEST CONDITIONS:

Column: HALO 90 Å PCS C18, 2.7µm, 2.1 x 100 mm

Part Number: 92812-617

Column: SPP C18 2.1 x 100 mm

Mobile Phase: A: Water, 0.1% Formic Acid  
B: Acetonitrile, 0.1% Formic Acid

#### Gradient Separation:

Time:	%B
0.00	6.0
1.00	6.0
4.50	80.0
5.00	80.0
5.10	6.0
8.10	6.0

Flow Rate: 0.4 mL/min

Back Pressure: 225 bar

Temperature: 30°C

Injection: 1.0 µL

Sample Solvent: 80/20 Water/ACN

Wavelength: PDA, 254 nm

Flow Cell: 1 µL

Data Rate: 100 Hz

Response Time: 0.025 sec.

LC System: Shimadzu Nexera X2

A mixture of amine based medications including antihistamines, decongestants, and other medications is separated on a HALO® PCS C18, 2.7 µm column. The column shows excellent peak shapes for basic compounds using formic acid compared to the SPP C18 column. The SPP C18 column shows better peak shape for the acidic compound (maleic acid) but has increased tailing for pseudoephedrine and causes a coelution of doxylamine and scopolamine. The utility of HALO® PCS C18 for basic compound separations is superior to a standard C18 phase under formic acid conditions and can make it easier to separate complex basic mixtures.

