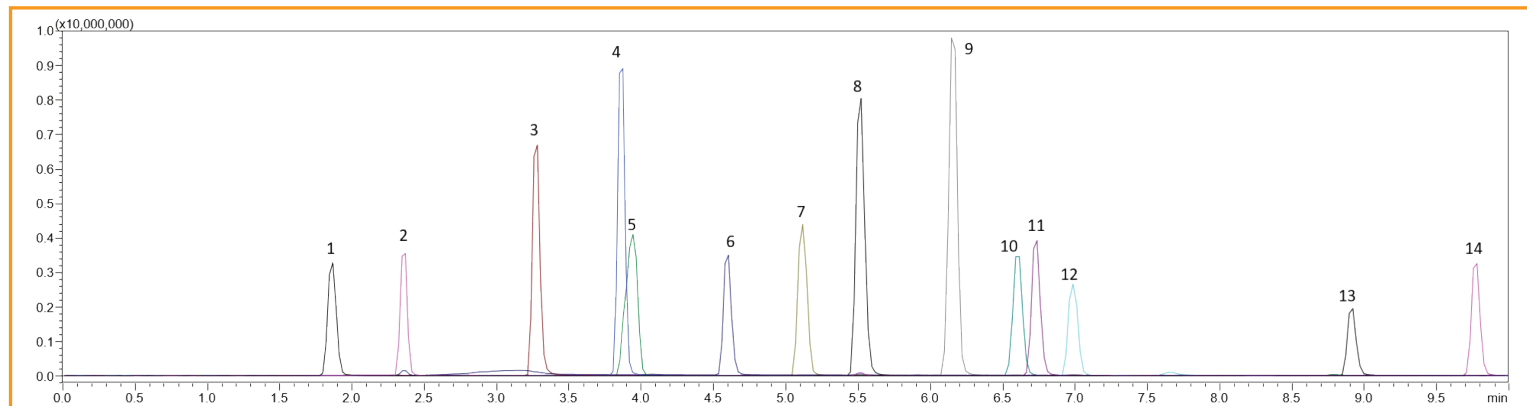




LC-MS Analysis of Beta-Blockers on HALO® PCS C18

446



TEST CONDITIONS:

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

Part Number: 92812-617

Mobile Phase A: Water/0.1% formic acid

Mobile Phase B: Methanol/0.1% formic acid

Gradient:	Time	%B
	0.00	0
	10.00	55
	11.00	100
	12.00	100
	12.50	0
	15.00	0

Flow Rate: 0.4 mL/min.

Pressure: 226 bar

Temperature: 30 °C

Injection Volume: 1 μ L

Sample: 100 ng/mL each analyte

Sample Solvent: 99/1 water/methanol

LC System: Shimadzu Nexera X2

MS CONDITIONS:

System: Shimadzu 8060

Detection Mode: DUIS ESI + 1 kV

Nebulizer Gas Flow: 3 L/min.

Interface Temperature: 250 °C

DL Temperature: 200 °C

Heat Block Temperature: 350 °C

Drying Gas Flow: 10 L/min.

PEAK IDENTITIES:

1. Sotalol
2. Atenolol
3. Pindolol
4. Carteolol
5. Nadolol
6. Metoprolol
7. Acebutolol
8. Oxprenolol
9. Bisoprolol
10. Labetalol
11. Propranolol
12. Betaxolol
13. Carvedilol
14. Nebivolol

A panel of 14 different beta-blockers was successfully separated using a HALO 90 Å PCS C18 column. Detection by MS enabled accurate identification of all analytes in a single analytical run. PCS C18 columns are specifically designed to provide symmetrical peak shape of basic analytes when run using formic acid-containing mobile phases, which are low ionic strength and could pose problems for non-charged stationary phases.