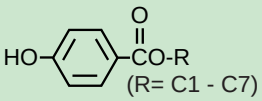
Cadenza CD-C18 30 x 3 mm Technical

# Elution Mode Comparison of High-Throughput Separation

## Shorter Separation Time by Optimal Elution Mode

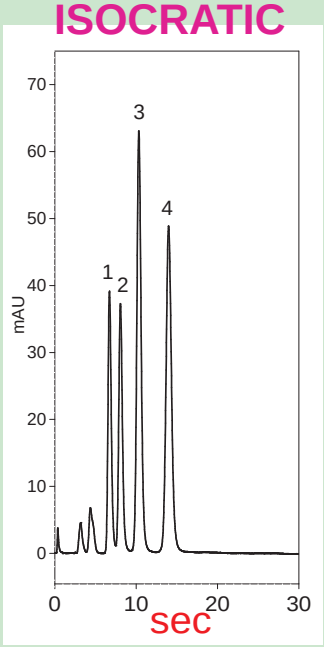
Cadenza CD-C18 **30 x 3 mm**



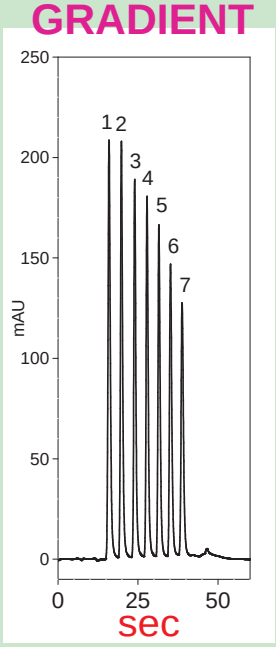

n-alkylparabens

water / ACN = 45 / 55
2.0 mL/min
13.2 MPa
37 deg.C
UV at 270 nm

**ISOCRATIC**




**GRADIENT**




A: water, B: ACN
40-100%B ( 0-18 sec )
100%B ( 18-60 sec )
1.2 mL/min
7.5 MPa
37 deg.C
UV at 270 nm

This is an elution mode comparison of high-speed separation by the small column Cadenza CD-C18.

The 3um small particle packings in Cadenza CD-C18 makes high-speed separation by a small column possible. In this case, the standard choice of isocratic and gradient elution modes is shown above. In the isocratic elution, four types of paraben antibacterial chemicals were analyzed in about 15 seconds.

In the gradient elution, we eluted 7 types of parabens in an average of 40 seconds despite a great difference in polarity among alkyl chain lengths.

Even in high-speed separation using small columns, the following usage of elution modes works for target ingredients with different polarities.

(1) For solutes with similar polarities : high-speed isocratic elution
(2) For solutes with different polarities : high-speed gradient elution

Cadenza's best performance is achieved by selecting the optimal elution mode.