Comparison of Obelisc N, SeQuant?® HILIC, and Bare Silica

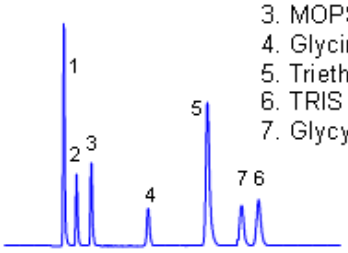
https://sielc.com/Application-Comparison-of-Obelisc-N-SeQuant-HILIC-and-Bare-Silica

Chromatogram

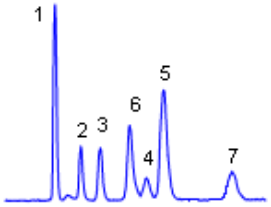
Column size: 150 x 4.6 mm
Mobile phase: 75% MeCN
20mM AmAc pH 4
Column temp: 35C
Detection: ELSD
Flow rate: 1 mL/min

1. Chloride ion
2. MES (2-(N-morpholino)-ethane sulfonic acid)
3. MOPS (3-(N-morpholino)-propane sulfonic acid)
4. Glycine
5. Triethanolamine
6. TRIS (trishydroxy-methylaminomethane)
7. GlycylGlycine

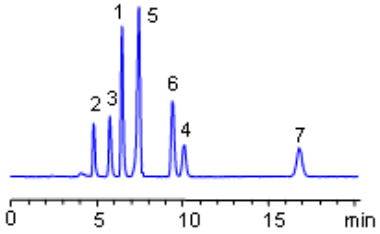
Column: Obelisc N



Column: Kromasil® Silica



Column: SeQuant® ZIC-HILIC



Description

Obelisc N mixed-mode columns provide different selectivity than other HILIC columns — presence of ion-exchange mechanism contributes to a different selectivity. Depending on the pH of the mobile phase, ion-exchange mechanism can be enhanced or suppressed. Two amino acids (glycine and glycylglycine), two basic compounds (triethanolamine and TRIS) and two zwitter-ionic compounds (MOPS and MES) are separated by combination of HILIC and ion-exchange mechanisms. Compounds elution can be monitored by Evaporative Light-Scattering Detector (ELSD), Corona (CAD), LC/MS or other detection techniques.