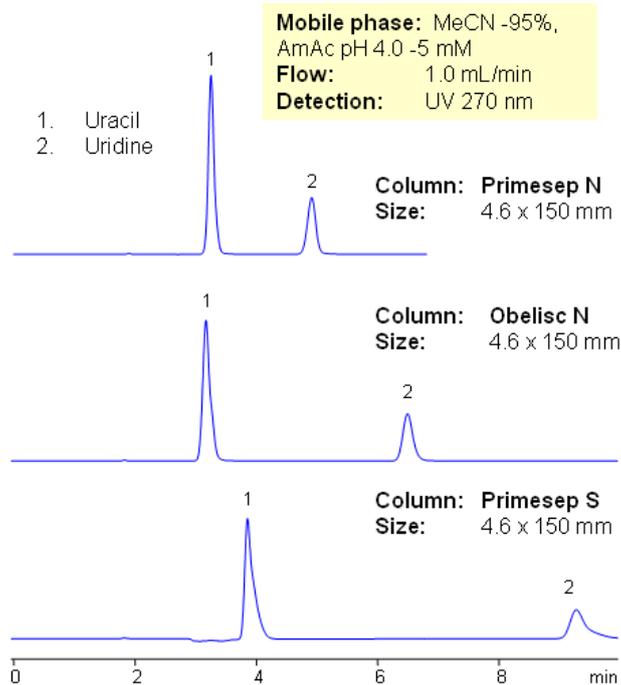


HILIC Retention of Uridine and Uracil on Sielc's HILIC Columns



Uridine and uracil are separated on three HILIC columns from SIELC. Primesep N, Primesep S, and Obelisc N columns all have different polarity and different embedded acidic groups on the surface of silica gel: Primesep N is a normal-phase HPLC column with embedded acidic groups with a pKa of about 5. Primesep S is a normal-phase HPLC column with embedded acidic groups with a pKa of about 3. The Primesep S stationary phase retains basic compounds by cation-exchange at pH > 3.

In traditional HILIC mode, a charged or neutral polar analyte interacts with a water layer on the polar stationary phase surface. On Obelisc N the charges are greatly separated and independently accessible, resulting in different selectivity compared to traditional HILIC and silica columns. Mobile phase composition changes the conformation of the long hydrophilic chain. All three columns can be used to analyze uridine and uracil by HPLC with UV, LC/MS and ELSD detection.

Method Parameters

Column	Primesep N, 4.6 x 150 mm, 5 µm, 100 Å, dual ended Primesep S, Obelisc N
Mobile Phase	MeCN/H ₂ O – 95/5%
Buffer	AmAc pH 4.0 – 5mM
Flow Rate	1.0 mL/min
Detection	UV 270 nm

Quelle: <https://sielc.com/application-hilic-retention-of-uridine-and-uracil-on-sielc-hilic-columns>