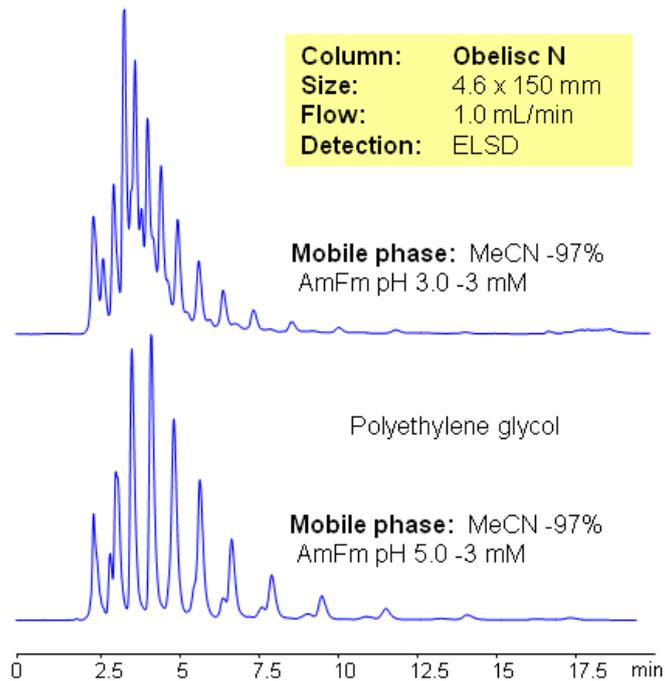


HILIC HPLC Separation of Polyethylene Glycol (PEG)



Polyethylene glycol (PEG) has low toxicity and is used in a variety of products (creams, laxatives, lubricants). When attached to various protein medications, polyethylene glycol allows a slowed clearance of the carried protein from the blood. This makes for a longer acting medicinal effect, reduces toxicity, and allows longer dosing intervals. HILIC separation of polyethylene glycol can be used to determine polyethylene glycol content in various formulations using ELSD, RI detection, or LC/MS detection. HPLC separation of oligomers can be achieved by changing amount of acetonitrile or buffer pH.

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

Method Parameters

| | |
|------------------|----------------|
| Detection | ELSD Detection |
|------------------|----------------|

Quelle: <https://sielc.com/Application-HILIC-Separation-of-Polyethylene-Glycol>