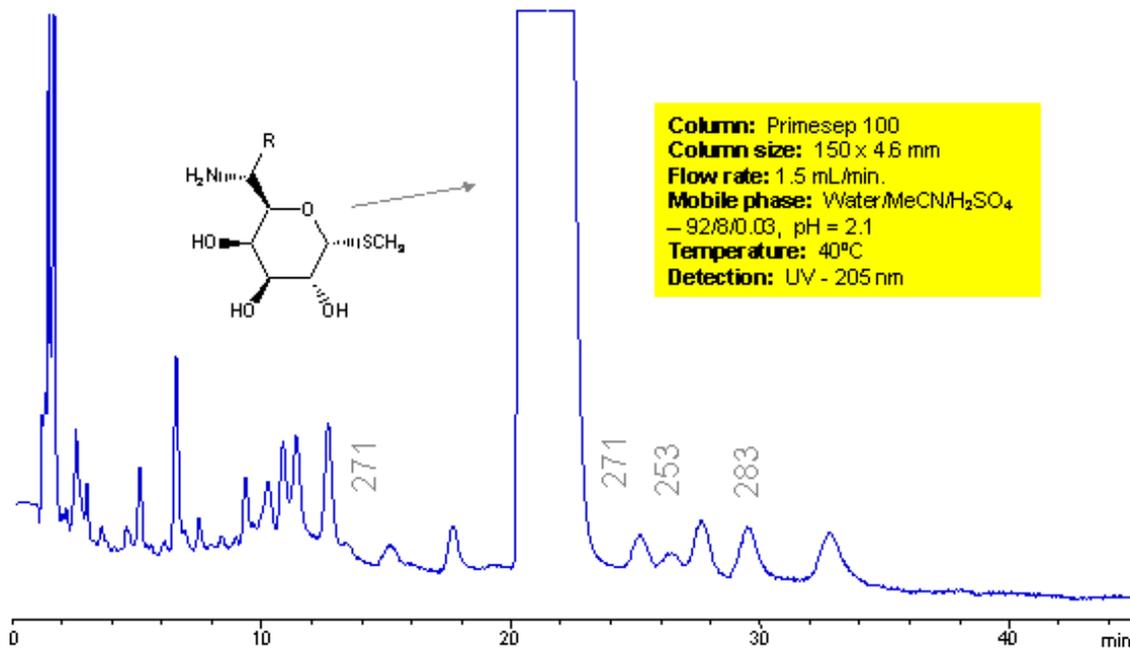


HPLC Separation of Impurities of Aminosugar



Amino sugars contain amino group and sugar moiety. A lot of antibiotics are based on amino sugars. Presence of sugar fragments and amino group makes it a very polar compound. There is no retention mechanism to analyze amino sugars in reverse phase chromatography. Low retention can be achieved on modern reverse phase column, but presence of amino group can cause peak tailing. Substituted amino sugar and related impurities were analyzed on Primesep 100 column. Reproducible analytical method is compatible with preparative chromatography and allows isolation of polar impurities with the employment of simple volatile mobile phase. Primesep 100 column has huge loading capacity and retain amino sugars by reverse phase and anion-exchange mechanisms. Method can be used for analysis and isolation of amino sugars with one or two amino groups. For antibiotics and amino sugars with more than two amino groups a weaker column is required (Primesep C or Obelisc R). Low UV, ELSD, RI and LC/MS detection technique can be applied with compatible mobile phases.

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	UV Detection
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Quelle: <https://sielc.com/Application-HPLC-Separation-of-Impurities-of-Aminosugar>