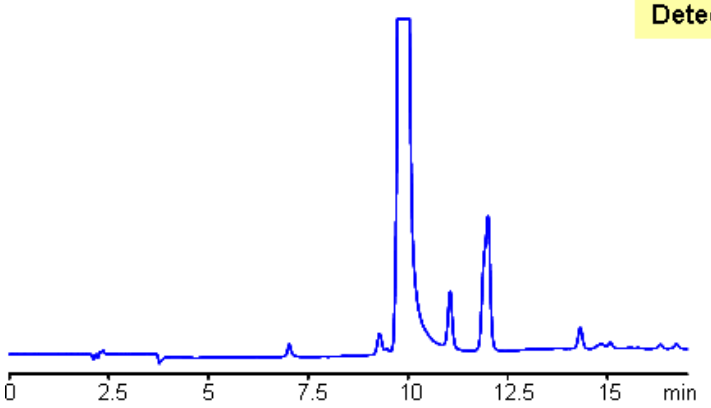
Analysis of Antibiotic Dapsone and Related Impurities in Mixed-Mode Chromatography

Column:	**Obelisc R**
Size:	4.6 x 150 mm
Mobile phase:	MeCN gradient 0% to 25% in 6 min , then to 70% next 14 min, Formic acid gradient 0.05% to 0.3% in 6 min, 0.3% next 14 min
Flow:	1.0 mL/min
Detection:	UV 270 nm



Separation type: Liquid Chromatography Mixed-mode

Dapsone is an antibiotic used to treat leprosy and acne. Obelisc R was used to analyze dapsone and its impurities. Obelisc R is a tri-modal reversed-phase, cation- and anion-exchange column. Method is compatible with LC/MS and prep chromatography.

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

Column	Obelisc R, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	Gradient MeCN – 0-25%, 6 min, 25-70% 14 min
Buffer	Gradient Formic Acid – 0.05%-0.3%, 10 min, 14 min hold
Flow Rate	1.0 mL/min
Detection	UV, 270 nm

Quelle: https://sielc.com/Analysis_of_Antibiotic_Dapsone_and_Related_Impurities_in_Mixed-Mode_Chromatography