

Hi-Plex Columns for Carbohydrate Analysis

- Agilent's recommended column for accurate, low-pressure analysis of typical carbohydrates, providing leading-edge features for reliable quantitative and qualitative analysis
- Enable reduced column operating pressures for repeatable performance and longer column life
- Wide range of ligand counter ions and column configurations meet requirements of challenging organic applications
- Simplified HPLC system requirements through isocratic separation capabilities; excellent batch-to-batch reproducibility for ultimate confidence in your results
- Can be used with water or diluted acid as an eluent
- Available in 8 μm and 10 μm particle sizes in a range of choices for USP media types – L17, L19, L34 and L58

The least complicated LC methods for detecting sugars, sugar alcohols and organic acids call for ligand-exchange columns with a simple mobile phase. However, the wide particle size distribution of conventional resins can lead to high backpressures and reduced productivity.

Hi-Plex columns are engineered with monodisperse sulfonated particles, creating a high-performance media uniquely suited to stringent USP methods for analyzing carbohydrates, alcohols and organic acids. Unlike the ZORBAX NH₂ column used for carbohydrate analysis with an acetonitrile:water mobile phase, Hi-Plex ligand-exchange columns provide more resolution for mono- and disaccharides due to the interaction of the hydroxyl groups with the metal ion associated with the cation-exchange functionality of the sulfonic acid group.



Column Specifications

Bonded Phase	Temperature Range	Flow Rate (mL/min)	Eluent
Hi-Plex Ca	80-90 °C	0.6	Water
Hi-Plex Ca USP L19	80-90 °C	0.3	Water
Hi-Plex Pb	70-90 °C	0.6	Water
Hi-Plex H for carbohydrates	60-70 °C	0.6	Water
Hi-Plex H for organic acids	40-60 °C	0.6	Dilute Acid
Hi-Plex Ca (Duo)	80-90 °C	0.6	Water
Hi-Plex K	80-90 °C	0.6	Water
Hi-Plex Na (Octo)	80-90 °C	0.6	Water, Sodium Hydroxide
Hi-Plex Na	80-90 °C	0.3	Water

Hi-Plex Columns for Carbohydrate Analysis

Description	Size (mm)	Particle Size (μm)	Crosslink Content (%)	Counter Ion	Part No.
Hi-Plex Ca USP L19	4.0 x 250	8	8	Ca ²⁺	PL1570-5810
Hi-Plex Ca (Duo)	6.5 x 300	8	8	Ca ²⁺	PL1F70-6850
Hi-Plex Ca	7.7 x 300	8	8	Ca ²⁺	PL1170-6810
Hi-Plex Pb USP L34	7.7 x 100	8	8	Pb ²⁺	PL1170-2820
Hi-Plex Pb	7.7 x 300	8	8	Pb ²⁺	PL1170-6820
Hi-Plex K	7.7 x 300	8	8	K ⁺	PL1170-6860
Hi-Plex H	6.5 x 300	8	8	H ⁺	PL1F70-6830
Hi-Plex H	7.7 x 300	8	8	H ⁺	PL1170-6830
Hi-Plex H USP L17	7.7 x 100	8	8	H ⁺	PL1170-2823
Hi-Plex Na	7.7 x 300	10	4	Na ⁺	PL1171-6140
Hi-Plex Na (Octo)	7.7 x 300	8	8	Na ⁺	PL1170-6840

Hi-Plex Guard Columns

Description	Size (mm)	Particle Size (μm)	Crosslink Content (%)	Counter Ion	Part No.
Hi-Plex Ca	7.7 x 50	8	8	Ca ²⁺	PL1170-1810
Hi-Plex Ca (Duo)	7.7 x 50	8	8	Ca ²⁺	PL1170-1850
Hi-Plex Pb	7.7 x 50	8	8	Pb ²⁺	PL1170-1820
Hi-Plex K	7.7 x 50	8	8	K ⁺	PL1170-1860
Hi-Plex H	7.7 x 50	8	8	H ⁺	PL1170-1830
Hi-Plex Na	7.7 x 50	10	4	Na ⁺	PL1171-1140
Hi-Plex Na (Octo)	7.5 x 50	8	8	Na ⁺	PL1170-1840

Hi-Plex Guard Cartridges, 2/pk

Description	Size (mm)	Particle Size (μm)	Crosslink Content (%)	Counter Ion	Part No.
Hi-Plex Ca	3.0 x 5.0	8	8	Ca ²⁺	PL1670-0810
Hi-Plex Ca (Duo)	3.0 x 5.0	8	8	Ca ²⁺	PL1670-0850
Hi-Plex Pb	3.0 x 5.0	8	8	Pb ²⁺	PL1670-0820
Hi-Plex K	3.0 x 5.0	8	8	K ⁺	PL1670-0860
Hi-Plex H	3.0 x 5.0	8	8	H ⁺	PL1670-0830
Hi-Plex Na	3.0 x 5.0	10	4	Na ⁺	PL1671-0140
Hi-Plex Na (Octo)	3.0 x 5.0	8	8	Na ⁺	PL1670-0840
Guard Cartridge holder for 3.0 x 5.0 mm cartridges					PL1310-0016