

4µm Guard Columns Used with the 2.0 Analytical HPLC Columns - Tech Information

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Recommendation: In general, we **do not recommend** using a guard column with a different particle size or stationary phase than the analytical column. Mismatched configurations can negatively impact chromatographic performance, particularly in terms of efficiency and peak shape.

Context for Cogent 2.0™ Columns

That said, Cogent 2.0™ columns are high-value assets, and in some cases, users may consider testing a 4 µm guard column if no better alternative is available. If you choose to proceed, monitor the method closely to determine whether the guard column introduces any adverse effects.

Alternative Option

If your primary goal is to protect the analytical column from particulate matter, a Cogent Column Filter (pre-column filter) may be a more appropriate solution. Unlike guard columns, which can act as chemical filters and potentially adsorb or alter sample components, pre-column filters provide physical protection without affecting the chemistry of the separation. [Precolumn Filters for all HPLC columns](#)

Important Note

Avoid using a guard column with a different bonded phase unless there is a specific application that justifies it—such as lipid trapping. In most cases, consistency between the guard and analytical column phases is essential for reliable results.

