

## Cogent Column Disposable Filter Compatibility Guide - Tech Information

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The **Cogent Disposable Column Filter** is designed to protect your HPLC columns by trapping particulates before they reach the column frits. These filters feature stainless steel (SS) frits housed in PEEK holders for durability and ease of use. When backpressure increases, simply remove and replace the unit with a new one to maintain column performance.

### Compatibility Overview

- **Fits:** Most 2.1 mm, 3.0 mm, 4.0 mm or 4.6 mm ID HPLC columns.
- **Important Note:**

The internal flow path of the Cogent Column Filter is optimized for 4.6 mm ID columns.

While it can be used with 2.1 mm ID columns, introducing a wider flow path may cause band broadening, especially if highly efficient tubing is installed.

### Practical Considerations

- Most analysts use standard tubing ( $\approx 0.005"$  ID) without changing the entire system for 2.1 mm columns. In these cases, the Cogent Column Filter typically performs well.
- For LC-MS systems:
  - **Separate HPLC + MS setups** often use 0.005" ID tubing—generally compatible.
  - **Dedicated LC-MS instruments** may have smaller ID tubing, where this filter might not be ideal.

### Material Compatibility

- The filter element is HPLC grade stainless steel, which may interact with certain compounds (e.g., nucleotides, proteins), potentially causing adsorption or peak distortion.
- For biological or metal-sensitive samples, consider a Titanium inline filter for improved corrosion resistance and biocompatibility.

### Additional Compatibility Note

The Cogent Column Filters are not compatible with Waters®-type fittings used on Waters HPLC columns.



Click [HERE](#) for ordering information and a picture of the Cogent Column Filters.



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