Is the Cogent Column Filter compatible with a 2.1mm ID column – FAQ

The Cogent Column Filter can be compatible with any stationary phase in an 2.1mm or 4.6mm HPLC column.

NOTE: *A compatibility concern to keep in mind is that the internal flow path of the Cogent Column Filter is designed for 4.6mm ID columns. Though one can use the 4.6mm ID Cogent Column Filter with a 2.1mm ID column there is a possibility by changing the flow path, one may observe band broadening if there is very efficient tubing in place.*

By connecting the current 2.1mm ID column and introducing a slightly wider path with the 4.6mm ID Column Filter, this ID change may cause some band broadening. Since most analysts do not typically change the entire system tubing to run 2.1mm columns and use standard ID tubing like 0.005" ID, in this case the Cogent Column Filter would likely would work well.

The Cogent brand of inline, column filters are stainless steel *(SS)* frits encased in PEEK holders that traps unwanted particles before they get trapped in the frits of HPLC columns. When back pressure begins to build up, these column filters can be easily removed and disposed of, keeping the column's frits fresh and clean.

If you are using a separate HPLC instrument hyphenated with an MS the system tubing is usually .005" ID and it may be okay whereas if using an LCMS unit that is designed for LCMS, the system tubing could have a smaller ID, where this inline filter may not be best suited.

One additional factor that might make this inline filter non-compatible for some users would be if they are observing issues with nucleotides or other compounds that interact with Stainless Steel. If metal interaction compatibility is an issue, the in line Filter element is made with Stainless Steel and may cause analyte adsorption/loss and/or poor peak shape. When analyzing biological samples, one might consider the benefits of employing a Titanium in line filter. Titanium offers a higher corrosion resistance compared to SS and is also more biocompatible for protein analysis.

Click HERE for ordering information and a picture of the Cogent Column Filters.

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