

I have an intermittent issue with chromatographic peaks appearing in my analysis. I think they might be coming from my syringe filters, what should I do?



It is possible that your syringe filter is introducing extractables into your sample during the filtration process. The source of the extractables could be the filter membrane, or alternatively the material which houses the membrane. When considering extractables, it may be possible to achieve a “steady state”. The majority of filters will have very low levels of extractables, and these will be leached from the filtration device by the first few millilitres of solvent passing through them. It is therefore possible to simply discard the first couple of millilitres of sample drawn through the filter, and by doing so eliminate extractables from the samples.

If sample size is critical, making it impossible to discard the first portion of filtered sample, it may be possible to eliminate the extractables by simply passing blank sample diluent

through the filter first. A further, and recommended alternative is to screen different filter membranes during method development, to ensure that either extractables are not present, or that if they are they don't interfere with the analysis being conducted. If for example, you are filtering aqueous samples, screening **nylon**, **regenerated cellulose** and **PVDF** filters before making a final selection would be prudent. For non-aqueous samples, screening **PTFE** and regenerated cellulose, assuming that chemical compatibility is adequate for the sample solvent, would be a good idea.

Syringe Filter Finder

3-step tool designed to help you find the appropriate syringe filter to help you successfully remove particulates from your sample matrix.

Use the tool today and request a free sample pack!

Phenomenex offers a wide range of syringe filters, if you have questions or concerns relating to extractables please let us know. We can also provide samples of filters on request.

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