

LIQUID CHROMATOGRAPHY (LC) TROUBLESHOOTING

Missing a solve for troubleshooting your instrument?
Contact ptfionbaording@gmail.com

Solutions

A – Check mobile phases and Condition

LC: Ensure correct mobile phases are selected in vendor software and on instrument. Visually ensure no particulate in solvents. If necessary, remake solvents.

B – Leak in LC: For leaks at column or in-line filters, tighten fittings (see Note 1). For leaks in the LC pump, follow required maintenance as defined by instrument manufacturer. For leaks in autosampler, flush needle and injection valve ports.

C – Clean or replace in-line filter or analytical column: The in-line filter and analytical column can be cleaned following instructions outlined in the nontargeted-metabolomics-technical-guide (see Note 2).

D – Clog in LC: Untighten line fittings, looking for significant pressure drops. Clean the clogged line and/or valve as directed by the instrument manufacturer.

E – Possible matrix effect of sample: Compounds in sample matrix may be causing clogs in the system (see Note 3). Consider using a different resuspension solvent to remove these interfering compounds prior to analysis.

F – Excess sample line: If possible, shorten the length of the tubing that carries samples from the column to the mass spectrometer

Notes

Note 1: If in-line filter is continually leaking, consider using a metal ferrule on the line connecting the LC pump to the column.

Note 2: If analytical columns are above lifetime, consider replacing the column and re-starting analysis.

Note 3: In most cases, solution D should be explored before solution E.

