

Troubleshooting Tips

No peaks

- Make sure there is spray from the nebulizer.
- Make sure the capillary voltage is set correctly.
- Make sure the LC/MSD is tuned correctly.
- Make sure LC/MSD pressures are within normal ranges.
- Check the drying gas flow and temperature.
- Make sure the fragmentor is set correctly.

Poor mass accuracy

- Recalibrate the mass axis.
- Make sure the ions used for tuning span the mass range of the sample ions and that they show strong, stable signals.

Low signal

- Check the solution chemistry. Make sure the solvent you're using is appropriate for your sample. Mixed samples can exhibit signal suppression of one or more components.
- Make sure the sample is fresh and has been stored correctly.
- Make sure the LC/MSD is tuned correctly.
- Check the nebulizer condition.
- Clean the capillary entrance.
- Check the capillary for damage and contamination.

Unstable signal

- Make sure the drying gas flow and temperature are correct for the solvent flow you are using.
- Make sure the solvent is thoroughly degassed. Do **not** use ultrasonic degassing with protein samples.
- Make sure the LC backpressure is steady; this indicates a steady solvent flow.

High spectral noise

- Use appropriate mass filter values.
- Check the spray shape. Nebulizer may be damaged or incorrectly set.
- Make sure drying gas flow and temperature are correct for the solvent flow you are using.
- Make sure the solvent is thoroughly degassed. Do **not** use ultrasonic degassing with protein samples.
- Make sure the LC backpressure is steady; this indicates a steady solvent flow.
- If you are using water as part of the mobile phase, make sure it is de-ionized (>18M Ω).

Droplets, not spray, exiting the nebulizer

- Make sure the nebulizing gas pressure is set high enough for the LC flow being used.
- Check the position of the needle in the nebulizer.
- Stop the solvent flow and remove the nebulizer assembly. Use a magnifying glass to examine the end of the nebulizer for damage.

No flow

- Make sure the LC is on and there is sufficient solvent in the correct bottle.
- Check for LC error messages.
- Check for blockages. Repair or replace any blocked components.
- Check for leaks.
- Make sure the MS stream selector valve is set to LC to MSD.

Undesired fragmentation

- Fragmentor is set too high.
- Ionization is causing fragmentation (APCI vs. Electrospray).
- APCI temperature is too high.