

Sample Considerations

Adequate sample purification is essential for accurate compositions and quantitative data. Unfortunately, even the purification protocols used can contribute both to sample contamination and loss. There are numerous factors to consider when trying to prevent sample contamination. Reagent or solvent solutions, glassware, pipetting devices, dust, fingers or anything else that comes in contact with the sample may introduce background free amino acids or proteins. The entire sample-handling environment must be scrupulously clean for high sensitivity analysis.

Tips to help reduce Amino Acid Sample Contamination

- Use dedicated or disposable sample handling devices (glassware, pipetting devices, etc.).
- Store everything that contacts the sample covered or in a sealed container to prevent the inclusion of dust in the sample.
- Wear gloves (powder free) when dealing with small amounts of samples.
- Use high purity reagents.
- Maintain dedicated or clean equipment (centrifuges, lyophilizers, etc.).
- Maintain a clean dust free sample handling environment.
- Carefully choose the buffers and detergents used in the isolation and purification procedures to minimize the effect on the derivatization chemistry.
- Open and close all sample vials carefully.
- Do not leave the sample vial open for longer than necessary for aliquoting.
- Avoid unnecessary opening of the sample vial and remove aliquots for multiple procedures at one time.