

Lipidomics Extraction Protocols

This chapter contains standardized SOPs for lipid extraction used in the Metabolomics Core. Methods include Matyash (MTBE) and Alshehry (BuOH:MeOH) workflows applied to plasma, tissue, and cell samples. These protocols are designed to support both targeted and untargeted LC-MS lipidomics, providing broad lipid class coverage, reproducibility, and compatibility with high-throughput analysis. Users should select the extraction method based on sample type, study design, and downstream analytical goals.

- [Plasma Lipid Extraction \(BuOH:MeOH, Alshehry\)](#)
- [Tissue Lipid Extraction \(BuOH:MeOH, Alshehry\)](#)
- [Cells Lipid Extraction \(BuOH:MeOH, Alshehry\)](#)
- [Plasma Lipid Extraction \(MTBE:MeOH:H₂O, Matyash\)](#)
- [Tissue Lipid Extraction \(MTBE:MeOH:H₂O, Matyash\)](#)
- [Cells Lipid Extraction \(MTBE:MeOH:H₂O, Matyash\)](#)

Plasma Lipid Extraction (BuOH:MeOH, Alshehry)

[Lipid Ex Alshehry Plasma LCMS v1-1.docx](#)

Tissue Lipid Extraction (BuOH:MeOH, Alshehry)

[Lipid Ex Alshehry Tissue LCMS v1-2.docx](#)

Cells Lipid Extraction (BuOH:MeOH, Alshehry)

[Lipid Ex Alshehry Cells LCMS v1.docx](#)

Plasma Lipid Extraction (MTBE:MeOH:H₂O, Matyash)

[Lipid Ex Matyash Plasma v1-1.docx](#)

Tissue Lipid Extraction (MTBE:MeOH:H₂O, Matyash)

[Lipid Ex Matyash Tissue v1-2.docx](#)

Cells Lipid Extraction (MTBE:MeOH:H₂O, Matyash)

[Lipid Ex Matyash Cells v1-1.docx](#)