



 SOP:
 CMR\_6

 PAGE:
 Page 1 of 2

 REV:
 1.2

DATE: 06 Apr 2025 AUTHOR: A.J. Burke

# Sample Preparation for the CMR

#### **During Sample Collection**

- 1. Quench metabolism
- 2. Store at -80C

#### **Prior to Shipping**

- 3. Generate an Excel metadata table for each individual sample
- 4. Aliquot a fixed target mass or liquid quantity (with normalised cell count/optical density) of sample into bead mill homogenisation vials or 2 mL Eppendorf tubes (30mg dry mass/100uL liquid, unless discussed previously) (weigh the precise amount)
- 5. Label each vial with a simple, unique identifier
- 6. Record the mass of sample in each individual vial and add to the metadata table
- 7. Store at -80C

Samples missing the precise, measured mass in each vial will be returned to you for weighing. The individual vial mass differences are required to normalise metabolite yield during sample processing.

### Shipping

- 8. Package vials into a vial box (do not pack loose vials in bags, do not use glass vials)
- 9. Label the box with the PI name and project reference
- 10. Arrange a suitable date for delivery with your CMR point of contact. Please give notice prior to shipping.
- 11. Send on dry ice, using a 24h service (e.g. Biocair, FedEx, DHL), to: Please avoid using Royal Mail

FAO: Dr. Adam Burke Insert contact details of receiver

University of Liverpool
Biosciences Stores
Biosciences Building
Crown Street
Liverpool
L69 7ZB

## Mass Spectrometry Compatible Consumables

Please use the relevant consumables below for sample collection and quenching

Item name	Supplier	Catalogue Number	Notes
Eppendorf Safe-Lock Microtubes	Fisher Scientific	0030120094	Required to prevent plasticiser leaching
15 mL Falcon Tubes	Fisher Scientific	188261	Required to prevent plasticiser leaching
50 mL Falcon Tubes	Fisher Scientific	227261	Required to prevent plasticiser leaching
Pre-filled 0.5 mm glass bead tubes	Fisher Scientific	15545799 (2mL)	Homogenisation tubes for tissue or solid samples only
Pre-filled 1.4 mm ceramic bead tubes	Fisher Scientific	15555799 (2mL) 15585799 (7mL)	Homogenisation tubes for tissue or solid samples only
Pre-filled 2.8 mm ceramic bead tubes	Fisher Scientific	15565799 (2mL) 15595799 (7mL)	Homogenisation tubes for tissue or solid samples only
Pre-filled 2.4 mm metal bead tubes	Fisher Scientific	15505809 (2mL) 15575799 (7mL)	Homogenisation tubes for tissue or solid samples only
2 – 20 μL Fisherbrand <sup>TM</sup> SureOne <sup>TM</sup> Aerosol Barrier Pipette Tips	Fisher Scientific	11943466	Required to prevent plasticiser leaching
1 - 200 μL Fisherbrand <sup>TM</sup> SureOne <sup>TM</sup> Beveled Pipette Tips	Fisher Scientific	11913436	Required to prevent plasticiser leaching
100 - 1250 μL Fisherbrand™ SureOne™ Micropoint Pipette Tips	Fisher Scientific	11568442	Required to prevent plasticiser leaching
Optima LC-MS grade Water	Fisher Scientific	11947199 or 10505904	Contaminant free solvent for quenching/extraction
Optima LC-MS grade Methanol	Fisher Scientific	10402824 or 10767665	Contaminant free solvent for quenching/extraction
Optima LC-MS grade Acetonitrile	Fisher Scientific	10001334	Contaminant free solvent for quenching/extraction
Optima LC-MS grade Propan-2-ol	Fisher Scientific	10684355	Contaminant free solvent for quenching/extraction



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 PAGE:
 Page 2 of 2

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