



MAR 19, 2024

🌐 Mouse sample collection for metabolomics studies

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ABSTRACT

Protocol used in the Mazmanian lab for collecting brain and gut tissues and plasma from mouse for metabolomics

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DOI:

dx.doi.org/10.17504/protocols.io.14egn3pkzl5d/v1

Protocol Citation: Livia Hecke Morais 2024. Mouse sample collection for metabolomics studies. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.14egn3pkzl5d/v1>

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Protocol status: Working
We use this protocol and it's working

Created: Mar 13, 2024

Last Modified: Mar 19, 2024

PROTOCOL integer ID: 96675

Keywords: ASAPCRN

Funders Acknowledgement:

ASAP

Grant ID: ASAP-020495

Samples collection for metabolomics studies

- 1 At 4 months of age, mice were sacrificed by decapitation
- 2 The brain was rapidly removed from the skull and placed in an ice-chilled stainless steel coronal matrix
- 3 Brain tissue was sectioned in slices of approximately 1 mm
- 4 Substantia nigra, striatum, motor cortex(referred to as cortex) and caudal brainstem (referred to as brainstem) were dissected within three minutes using a brain atlas as reference¹
- 5 Gut tissue and contents were dissected on an ice-chilled stainless steel dissection tray
- 6 All tissue samples were weighed, stored in and stored at Precellys[®] 2 mL Soft Tissue Homogenizing Ceramic Beads tubes (Catalog number: 10011152), snap-frozen in dry ice and stored at -80°C

until processing

7 Trunk blood was collected in BD Vacutainer™ Hemogard™ Closure Plastic K3-Edta Tubes (Catalog number: 15349700) and kept at room temperature before plasma separation

8 Plasma was separated by centrifugation at 2,500 x g for 10 minutes

9 Plasma was transferred to a pre-cooled collection vial Thermo Scientific Pierce 1.5 mL Capacity Microcentrifuge Tubes (Catalog number: 69715) and stored at -80°C until processing

10 References:
1. Paxinos, G. and Franklin, K.B.J. (2001) The Mouse Brain in Stereotaxic Coordinates. 2nd Edition, Academic Press, San Diego.