

# SPECIMEN COLLECTION GUIDE

INHERITED METABOLIC DISORDERS TEST



The Power of Precision Medicine for Inherited Metabolic Disorders

# SPECIMEN REQUIREMENTS & SHIPPING/HANDLING

## Minimum Requirements:

- At least 0.25 mL frozen plasma
- At least 0.25 mL frozen urine, **or**
- At least 0.25 mL frozen cerebrospinal fluid (CSF)

Fasting is preferred, but **not** required, for this test. However, you must note if the patient has been fasted for 8 to 10 hours prior to specimen collection and received no other nutritional intervention other than water for that time period.

Frozen specimens should be sent on dry ice to retain -20°C to -80°C temperature during transport.

## IMPORTANT:

All patient specimens require a unique identifier on both the Test Requisition form **and** tube(s) using a permanent marker. Information must be completed on the Test Requisition form.

Specimen Type	Vacutainer Tube Type/ Stopper Color	Minimum Volume	Shipment Condition
Plasma	EDTA (K2) / Lavender Top	0.25 mL	Overnight /Frozen on dry ice
Cerebrospinal Fluid (CSF)	Not Applicable	0.25 mL	Overnight /Frozen on dry ice
Urine	Not Applicable	0.25 mL	Overnight /Frozen on dry ice

## Collection Materials Needed

- 1 lavender top plasma collection tube
- Collection vials appropriate for urine or CSF collection (if collecting and sending urine and/or CSF)
- Transfer pipette
- Cryogenic vials

## Shipping Materials Needed

- Document envelope (for shipment requisition forms)
- Cryogenic vial cartons
- Biohazard bag
- Styrofoam cooler
- Cardboard outer shipping box
- Absorbent pad
- Biological Substance Category B label (UN3373) (refer to carrier guidelines to confirm this is required)
- Class 9 Dry Ice label
- Test requisition form

## PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE COLLECTING THE SPECIMEN.

## Test Requisition Form

Complete a test requisition form for each specimen. The following information must be present:

- Unique patient identifier for each sample
- Age of patient
- Sex (male or female)
- Genetic screening information, if known at the time of sending specimen
- Date of specimen collection and collection time
- Specimen type (e.g. EDTA plasma, urine, CSF)
- Name of physician or legally authorized person ordering the test
- Fasting status (indicate whether patient has eaten/received nutrition within past 8 hours)

## Patient Preparation

The fed/fasted status of an individual matters when analyzing a subject's biochemical profile. You must note whether the patient was fed OR fasted for 8 to 10 hours prior to collection. The patient has been fasted if they received no nutritional intervention other than water for that time period.

## Specimen Collection

**EDTA PLASMA** specimen collection, preparation, and storage:

- a. Draw blood into the lavender top tube and gently invert 8-10 times to ensure mixing of anticoagulant (EDTA) with blood to prevent clotting.
- b. Centrifuge EDTA tubes at 800-1800g for approximately 10 minutes to separate the plasma from the whole blood cellular fraction.
- c. **Important note: The plasma must be separated from the whole blood within 1 hour to obtain accurate test results.**
- d. Using a disposable pipette, transfer as much of the plasma as possible (minimum of 0.25 mL) into a screw-top cryogenic vial and cap the vial tightly. The plasma should be free of hemolysis and red blood cells. We prefer the following: Sarstedt tubes with O-ring seal, 2 mL (Sarstedt Cat# 72.964.006 or Fisher Cat #50809242). Eppendorf (Brinkmann), 1.5 mL polypropylene may also be used (Brinkmann Cat #022363204 or Fish Cat #05-402-25).
- e. Immediately place the plasma specimen into the freezer ( $\leq -20^{\circ}\text{C}$ ). Store the plasma specimen frozen until it is ready for shipment.

**URINE** specimen collection and storage:

- a. Collect 0.25 to 1 mL of urine in a sample vial (polypropylene tube). We recommend the following: Sarstedt tubes with O-ring seal, 2 mL (Sarstedt Cat# 72.964.006 or Fisher Cat #50809242). Eppendorf (Brinkmann), 1.5 mL polypropylene may also be used (Brinkmann Cat #022363204 or Fish Cat #05-402-25).
- b. Immediately after collection, freeze urine specimen as quickly as possible and store at  $-80^{\circ}\text{C}$ .

**CSF** specimen collection and storage:

- a. Collect 0.2 to 0.5 mL of CSF in a sample vial (polypropylene tube). We recommend the following: Sarstedt tubes with O-ring seal, 2 mL (Sarstedt Cat# 72.964.006 or Fisher Cat #50809242). Eppendorf (Brinkmann), 1.5 mL polypropylene may also be used (Brinkmann Cat #022363204 or Fish Cat #05-402-25).
- b. Immediately after collection, freeze CSF specimen as quickly as possible and store at  $-80^{\circ}\text{C}$ .

## Shipping Instructions

1. Specimens may be shipped five days a week (Monday-Friday). Specimens are extracted each Wednesday at Metabolon. Specimens received after Wednesday will be included in following week batch analysis.
2. Place specimen(s) into the cryogenic vial carton(s).
3. Place each cryogenic vial carton and absorbent pad into a biohazard bag, then place into the Styrofoam cooler. NOTE: Two white cryogenic vial cartons (128 samples max) can be shipped per Styrofoam cooler.
4. Add dry ice content per Minimum Dry Ice Recommendation<sup>1</sup> and fill any void space with other cushioning material (e.g., bubble wrap).
5. Place the lid on the Styrofoam cooler.
6. Place the test requisition form(s) into document envelope and seal. Place the sealed envelope on top of the cooler.
7. Close and seal the cardboard outer shipping box.
8. Affix Biological Substance Category B (UN 3373) label on one side of the outer shipping box. (Refer to carrier to confirm if needed)
9. Affix a Dry Ice (Class 9) Label on alternate side of outer shipping box and complete "Ship From and Ship To" section along with the carton gross KG weight. (Refer to carrier for detail instructions)
10. Fill in the ship-to address and any other required information on the shipping label. Affix shipping label to the outer shipping box.

### Ship to:

**Metabolon, Inc.**

**Attn: Sample Preparation Manager**

**617 Davis Drive, Suite 400**

**Morrisville NC 27560**

11. To ensure proper shipment tracking, we recommend sending email notification to the following individuals indicating: 1) confirmed shipment date; 2) shipment tracking number; and 3) electronic copy of requisition form(s)/specimen manifest, or if there are any shipment problems or questions.

**Primary Contact:**

Don Harvan, Director, Platform Chemistry  
 Email: dharvan@metabolon.com  
 Phone: (919) 287-3376

**Alternate Contact:**

John Oswald, Staff Scientist and Chemist  
 Email: joswald@metabolon.com  
 Phone: (919) 287-3362

## Shipping Notes

- Samples should be shipped Monday through Friday using priority next day delivery service.
  - If shipping on Friday, sender must select **SATURDAY delivery option on carrier's shipping form. If option not selected, there may be a delay in delivery and possible specimen rejection.**
  - Contact Metabolon regarding Saturday or holiday delivery to ensure timely receipt. Platform and lab operation schedules can be subject to change during these times.
- Reports will be available and delivered within two weeks of specimen receipt.

## MINIMUM DRY ICE RECOMMENDATIONS

Weight of Frozen Goods	Placement of Dry Ice Inside of Shipper	Transit Time (quantity of dry ice required)		
		Less than 12 hrs	Between 24 hrs & 48 hrs	Between 48 hrs & 72 hrs
5 lbs	Top	3 lbs	5 lbs	10 lbs
	Bottom	Not applicable	Not applicable	Not applicable
10 lbs	Top	5 lbs	10 lbs	15 lbs
	Bottom	Not applicable	Not applicable	Not applicable
15 lbs	Top	8 lbs	15 lbs	23 lbs
	Bottom	Not applicable	Not applicable	Not applicable
20 lbs	Top	10 lbs	20 lbs	30 lbs
	Bottom	Not applicable	Not applicable	Not applicable
30 lbs	Top	10 lbs	20 lbs	30 lbs
	Bottom	5 lbs	10 lbs	15 lbs
40 lbs	Top	15 lbs	25 lbs	40 lbs
	Bottom	5 lbs	15 lbs	20 lbs
50 lbs	Top	15 lbs	35 lbs	50 lbs
	Bottom	10 lbs	15 lbs	25 lbs
75 lbs	Top	30 lbs	60 lbs	75 lbs
	Bottom	15 lbs	15 lbs	35 lbs
100 lbs	Top	30 lbs	70 lbs	100 lbs
	Bottom	20 lbs	30 lbs	50 lbs

Source: <http://the-iceman.com/wp-content/uploads/DryIceCalculator.pdf>

For additional assistance and inquiries regarding Meta IMD™ Test, contact Customer Service via phone 1.844.363.META or email [meta-imd@metabolon.com](mailto:meta-imd@metabolon.com)



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