



Laboratory Manual

Sonoma Biotherapeutics

Protocol Number: SBT777101-01

A Phase 1 Study to Evaluate the Safety, Tolerability, Pharmacokinetics, Pharmacodynamics, and Activity of Single Ascending Doses of SBT777101 in Subjects with Rheumatoid Arthritis

Version/Date: V3 22-Nov-2023

Region: US

Version 3 Summary of Changes

Section	Previous Information	Updated Information	Justification
3 Specimen Labeling (Requisition Forms)	N/A	Pre-Treatment Reassessment Visit 2 forms added to the back of the requisition binder	Per sponsor request
8.1.6 Exploratory Markers - Plasma	Centrifuge within 15 minutes	Centrifuge within 60 minutes	Per sponsor request
1.1.1 Synovial Biopsy (Cryo and FFPE)	N/A	Tables updated	Per sponsor request
8.1.3 ADA 8.1.4 Exploratory Markers - Serum	N/A	If the serum is not separated from the blood after centrifugation, re-centrifuge the sample until the serum is separated.	Per sponsor request
8.1.5 PBMC (collection) 8.1.8 Synovial Fluid (Supernatant and Cell Pellet)	N/A	Heparin tube picture corrected (no gel layer)	Per sponsor request
14 Appendix F Quick Reference Chart	V3	V5 plasma sample spin time updated, re-spin instruction added for serum samples, and comment added for Pre Treatment Reassessment visits	Per sponsor request

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1 Laboratory Information

The first section of the Laboratory Manual provides an overview of basic laboratory information such as contact information, specimen collection and processing instructions, shipping guidelines, laboratory reporting details, and accreditation certificates. The study-specific section provides detailed instructions related to a particular study.

1.1 Contact Information

Medpace Reference Laboratories (MRL)

5365 Medpace Way

Cincinnati, Ohio, US 45227

Phone: +1.513.366.3270 or +1.800.749.1737 (North America sites only)

Fax: +1.513.366.3273 or +1.800.705.2177 (North America sites only)

Client Services

The extension for the Project Manager assigned to your protocol is in the study-specific laboratory manual. Contact client services to clarify sample collection procedures or shipment temperature, request additional laboratory supplies, or re-send laboratory reports. You should have the following information available each time you contact MRL:

- Sponsor name
- Protocol number
- Site number
- Subject ID (where applicable)
- Date of collection and visit (where applicable)

1.2 MRL Hours of Operation and Holiday Observances

	2023	2024	2025	US Laboratory Public Holiday
Monday - Friday 8:00am - 5:00pm (ET)				
Saturday 8:00am - 4:30pm (ET)	01 January	01 January	01 January	New Year's Day
	29 May	27 May	26 May	Memorial Day
	04 July	04 July	04 July	Independence Day
Sunday and Public Holidays Closed*	04 September	02 September	01 September	Labor Day
	23 November	28 November	27 November	Thanksgiving Day
	25 December	25 December	25 December	Christmas Day

*Couriers do not deliver specimens on those days. Sites will be notified in advance if shipping adjustments are required because of public holidays.

2 Laboratory Materials

MRL provides sites with study-specific supplies, including (as applicable):

- **Laboratory Manual:** general and study-specific
- **Quick Reference Chart:** laboratory schedule and abbreviated sample processing instructions
- Visit-specific laboratory kits
- Extra laboratory supplies
- Subject requisition forms
- Packaging and shipping materials (boxes, pre-printed airbills, labels)
- Letter indicating the latest time that the local courier can be contacted to ensure same-day pick-up

2.1 Specimen Collection Supplies

Each visit-specific kit is labeled with the Sponsor Name, Protocol Number, Visit(s) the kit is to be used for, and Expiration Date of the kit. Lab kit labels have a peel-off barcode label that must be removed from the used lab kit's label and affixed to the requisition form for the corresponding visit. If there are multiple pages of requisitions provided for a given visit, affix the lab kit barcode label to the first requisition page. There is space on the requisition form to place the lab kit barcode label (refer to section 3.1).

Extra laboratory supplies are provided in the initial supply shipment for unscheduled visit testing or in cases where additional supplies are needed (e.g., vacutainer tube included in lab kit does not contain vacuum).

Prior to phlebotomy, ensure that laboratory kits are not expired. Expiry date is indicated on the laboratory kit label. Pay particular attention to the expiration date of each component taken from extra supplies prior to use.

To request additional laboratory supplies, please order via web at www.medpace.com within the **study-specific** MRL ClinTrak web portal. As secondary/back-up options, please send the Laboratory Re-Supply Form (Appendix I) via fax (513.366.3273), e-mail (MRL-US-PA@medpace.com), or contact the Client Services Department via phone (513.366.3270 ext. 11304). Allow 1-2 weeks for delivery.

3 Specimen Labeling (Requisition Forms)

Each set of requisition forms is subject-specific and includes forms for all study visits with laboratory assessments. Forms for early termination, pre-treatment reassessment, and unscheduled visits, if applicable, are provided in the back of each set. We recommend keeping the requisition set in a unique location per subject, like the subject file.

3.1 Overview of the Requisition Form

Standard demographic information collected on a requisition form may include (see Figure 1):

- Subject randomization number
- Subject sex at birth
- Subject age at time of collection
- Date of collection
- Time of collection (24-hour clock)
- Is Subject Fasting?
- Childbearing Potential

Refer to Section 7 for the study-specific demographic information collected on the requisition form.



Important: Incomplete or illegible information prompts immediate site contact for verification. In cases where the issue cannot be resolved promptly, sending the laboratory report may be delayed.

Space is identified in the header of the first requisition page of each visit to affix the peel-off barcode label from the lab kit used for that visit (Figure 1).




Important: Remember to provide this barcode for every subject visit so that MRL can track the number and expiration date(s) of kits remaining at the site.

The columns of the Requisition Form have specific uses (Figure 1).

Column	Information
1	Small labels are provided for site use
2	Abbreviated specimen processing and shipping instructions
3	Labels provided to place on the primary collection tube (vacutainer or urine cup)
4	Labels are provided for placement on secondary containers (transfer vial or slide mailer as applicable)
5	Labels are provided for placement on the individual hematology blood slides (as applicable)

Demographic Information

MEDPACE
 Reference Laboratories


 7 G S A K L V 4

Site ID: 002
 Subject ID: 002-001
 Week -1 Visit 1

Generic Company, Inc
GEN-124

Affix Kit Label Here

Initials: A B C
 Sex: [] M [x] F
 Female of childbearing potential?: [] Yes [x] No

Date of Collection: 30 JUL 2009
 Date of Birth: 02 DEC 1958

Time of Collection: 07:30
 (24 hour)
 Is Subject fasting?: [x] Yes [] No

GEN-124 002-001 -1:1 Full Chemistry Profile Full Chemistry Profile 7.5mL SST (red & gray) Fill tube completely. Allow blood to clot 30 min. Centrifuge 1200g for 15 min. Do NOT open tube.	GEN-124 002-001 -1:1 Hepatitis Profile Hepatitis Profile 7.5mL SST (red & gray) Fill tube completely. Allow blood to clot 30 min. Centrifuge 1200g for 15 min. Do NOT open tube.	GEN-124 002-001 -1:1 Hematology/HbA1c Hematology/HbA1c 4.0mL EDTA (purple) Fill tube completely. Invert gently 8-10 times. Do NOT centrifuge. Do NOT open tube. Prepare and submit 2 blood slides.
GEN-124 002-001 -1:1 Plasma Glucose Plasma Glucose 2.0mL Sodium Fluoride (gray) Fill tube completely. Invert gently 8-10 times. Centrifuge 1200g for 15 min. Aliquot plasma, discard vacutainer tube.	GEN-124 002-001 -1:1 Urinalysis Urinalysis Collect midstream sample in cup. Aliquot urine, discard urine cup.	

Medpace Reference Laboratories
 4620 Wesley Ave.
 Cincinnati, OH 45212 US
GENERIC PHARM, INC.
Protocol: GEN124
Specimen Collection Kit A
 Visit: Enrollment/Randomization
 Expiry Date: 01 Nov 2008
 Batch No: S1050
 Expiry Date: 01 Nov 08
 Please peel off and attach to the Requisition Form

GEN-124 002-001 -1:1 Hematology (Slide Mailer)	GEN-124 002-001 -1:1 Plasma Glucose (1 Cryovial - Orange Cap)	GEN-124 002-001 -1:1 Urinalysis (Urine Transport Tube)
---	--	---

Medpace Reference Laboratories
 4620 Wesley Ave.
 Cincinnati, OH 45212 US
GENERIC PHARM, INC.
Protocol: GEN124
Specimen Collection Kit A
 Visit: Enrollment/Randomization
 Expiry Date: 01 Nov 2008
 Batch No: S1050
 Expiry Date: 01 Nov 08
 Please peel off and attach to the Requisition Form

For Internal Use Only

Verified:

Airbill #:

Site Use

Abbreviated Processing and Shipping Instructions

Primary Collection Tube

Secondary Container

Slides

Figure 1 – Requisition Form

Secondary Container labels (Figure 2) should be placed on the corresponding tube lengthwise in the middle of the tube or vial as shown in Figure 3. Labels should not cover the cap of the tube.


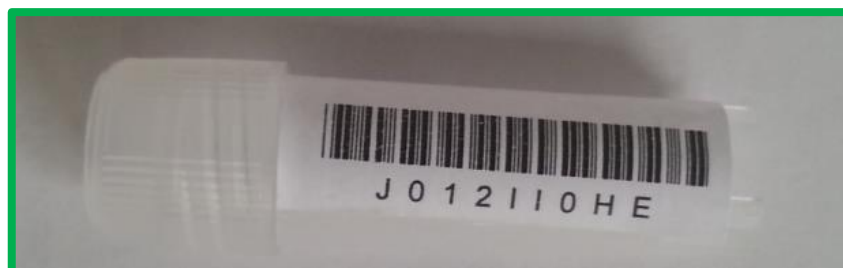
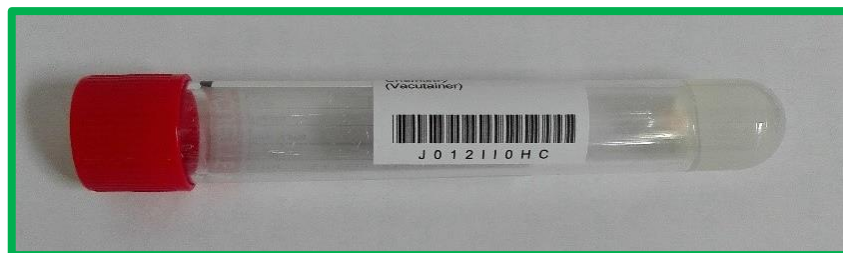
Subject Laboratory ID	005-011
Protocol Number	GEN-000123
Protocol Time Point	1 : 3
Test/Profile Name	Brief Chem/Apos (Vacutainer)
Sample-specific Information Field that requires additional information specific to the sample (if applicable)	Time of Collection: ____ : ____
Barcode Uniquely codes the study, subject ID, visit, and tests performed on each tube	 1 4 4 U L H F 7

Figure 2 – Example Specimen Label

Correct labeling:

Lengthwise. Do NOT cover cap of the tube.



Incorrect labeling:

This label is not lengthwise.

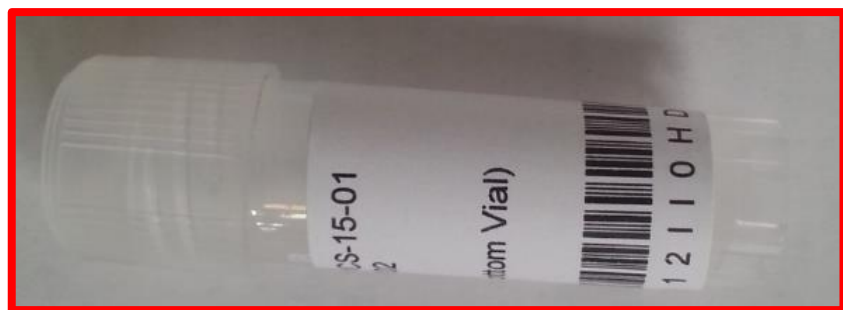


Figure 3 – Label Placement

3.2 Submitting Requisition Forms

Submit completed requisition forms to MRL in the shipment box together with the corresponding samples. In cases where back-up aliquots are shipped separately from the primary sample, the original completed requisition form must be copied PRIOR to the first shipment and a copy included with the subsequent shipments.

Requisition forms for samples shipped periodically in batches should be kept at the site with the samples until shipment. Photocopies of completed requisition forms, along with the shipment tracking number, should be maintained in site files.

If multiple forms are available for an unscheduled visit, ALL forms should be completed with the requested demographic information and submitted to the laboratory, even if no labels from a particular page are used.

In cases where a sample is not collected (e.g., difficult venipuncture, error, or subject unable to void a urine sample), leave the barcode label for that sample affixed to the requisition and make a notation next to the label the reason why the sample was not submitted. Refer to the example in Figure 4:

GEN-124 002-001 -1:1 Plasma Glucose

Plasma Glucose
2.0mL Sodium Fluoride (gray)
Fill tube completely. Invert gently 8-10 times.
Centrifuge 1200g for 15 min. Aliquot plasma,
discard vacutainer tube.

GEN-124 002-001 -1:1 Urinalysis

Urinalysis
Collect midstream sample in cup. Aliquot urine,
discard urine cup.

GEN-124 002-001 -1:1 Urinalysis (Urine Cup)
Do NOT send cup to lab.

GEN-124 002-001 -1:1 Urinalysis (Urine Transport Tube)

Subject unable to void

For Internal Use Only Verified: Airbill #:

Figure 4 – Example Notation

4 Specimen Shipping

Sites are responsible for obtaining training of their staff for the shipment of biological specimens.

If safe transport of ambient specimens cannot be guaranteed within 24 hours of collection, contact the study-specific MRL Project Manager. Refer to Appendix E, Alternate Specimen Handling/Shipping Arrangements for instructions on how to proceed in emergency or other unusual circumstances that interrupt or affect normal shipping or delivery of samples to the MRL US facility.

4.1 Shipping Supplies

All shipping supplies provided by MRL are in compliance with international regulations (IATA PI650 / UN3373). Pre-printed airbills are provided that contain the site address as the shipper, MRL address, description of contents, and overnight shipment designation.

4.1.1 Dry Ice

MRL US does not routinely provide sites with dry ice, although we can assist in locating dry ice providers in the vicinity of the site. Contact the study-specific MRL Project Manager should you have difficulty, or require assistance, in obtaining dry ice for specimen shipments.

4.1.2 Instructions for Completing the List of Contents

An itemized List of Contents must be included in each shipment, as required by current shipping regulations for biological substances. This complies with International rules & regulations pertaining to the transport of Diagnostic Specimens/Biological Substances Category B (IATA UN3373 – Packing Instruction 650). This is required by IATA for transportation, is valid for such purposes only, and is not subject to any internal audit or archiving obligations.

STEP 1 The List of Contents is incorporated onto the **inner lid** of the shipping boxes. (See Figure 5)

STEP 2 One itemized List of Contents must be completed for the entire contents of each shipping box (one List of Contents per outer container).

STEP 3 Complete the List of Contents, indicating the Protocol number and site number associated with the samples. Check the box next to each sample type included in the shipment and enter the quantity of vials included for each sample type on the line to the right of the description.



Note: Serum separator tubes (red or gold tops) are classified as whole blood. The person who packed the shipment and completed the List of Contents must print his/her name, sign and date the bottom of the form (Figure 5).

Packing - Shipping List (List of Contents)

Protocol Number GEN123 Site Number 001

Check the box next to each sample type included in this shipment and enter the number of each sample type on the line to the right of the description:

☒ Human blood (whole) x 1 tubes x 2 blood smears

☒ Human urine x 1 vials

☒ Human serum x 2 vials

☐ Human plasma x _____ vials

☐ Human tissue x _____ slides / biopsies in solution / other _____ (Circle the appropriate medium)

☐ Other: _____ x _____ quantity

Specimens packed by:

Name (Printed) Jane Smith

Signature Jane Smith

Date 04Jun2020

This document complies with International rules & regulations pertaining to the transport of Diagnostic Specimens/Biological Substances Category B (IATA UN3373 - Packing Instruction 650).

This document is required by IATA for transportation, is valid for such purposes only and is not subject to any internal audit or archiving obligations.

Figure 5 – Itemized List of Contents

4.2 Preparing Specimens for Shipment

4.2.1 Refrigerated/Ambient Shipments

Refrigerated temperature shipments are defined as shipments in the temperature range of 2°C to 8°C. Ambient temperature shipments are defined as shipments in the temperature range of 15°C to 25°C. Specimens intended for refrigerated and ambient shipment should be shipped on the day of collection whenever possible.

STEP 1 Refrigerated/Ambient boxes will arrive at your site compressed. **Please open the compressed box at least 24 hours before you intend to use it**, so that the foam insulation may fully expand. Assemble the shipping box by folding the numbered flaps in numerical order.



STEP 2 Refrigerant packs included with compressed boxes should be frozen for a minimum of 24 hours at -20°C ±5°C prior to use. Do NOT freeze refrigerant packs at ultralow temperatures (-75°C ±10°C), as this will result in samples freezing in transit.



STEP 3 Confirm that all demographic information is filled out on the requisition form(s), that the itemized List of Contents has been completed, and that all tubes are properly labeled.



4.2.1.1 Refrigerated Section

STEP 1 Place the tubes for refrigerated shipment in the 95kPa absorbent safety specimen bag(s) and seal the bag(s) (maximum 7 tubes per bag) as per the instructions on the bag.



STEP 2 Place the refrigerant pack (previously frozen at $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for at least 24 hours) in the larger foam compartment.



Note: If using a saddle-bag refrigerant pack, one saddle-bag is sufficient. If using individual refrigerant packs, please use two packs per box.



Important: Do not freeze the refrigerant pack at ultra low temperatures ($-75^{\circ}\text{C} \pm 10^{\circ}\text{C}$), as this will result in the samples freezing in transit.



STEP 3 Place the foam insert on top of the refrigerant pack.



STEP 4 Place the refrigerated samples, in the 95kPa absorbent safety specimen bag(s), on top of the foam insert.



4.2.1.2 Ambient Section

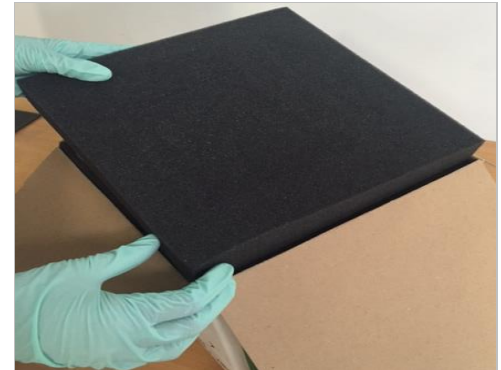
STEP 1 Place the tubes for ambient shipment in the 95kPa absorbent safety specimen bag(s) and seal the bag(s) (maximum 7 tubes per bag) as per the instructions on the bag.



STEP 2 Place the Ambient samples, in the 95kPa absorbent safety specimen bag(s), into the smaller foam compartment.



STEP 3 Place the foam lid securely over the sample compartments.



STEP 4 Fold and place the requisition form(s) on top of the foam lid. Complete the List of Contents on the inner lid of the box, close the box, and secure with tape.

STEP 5 Complete the courier airbill as outlined in section 4.3.2.

STEP 6 Complete the List of Contents on the inner lid of the box, close the box, and secure with tape.



4.2.2 Frozen Shipments

Frozen temperature shipments are defined as shipments $<-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$. Frozen shipments are shipped Monday through Wednesday only (or Thursday if expected transit time does not exceed 24 hours) to ensure receipt during normal business hours. Refer to section 9.0. of this manual for study-specific instructions for the frequency of frozen shipments.



STEP 1 Confirm that all demographic information is filled out on the requisition form(s), that the itemized List of Contents has been completed, and that all tubes are properly labeled.

STEP 2 Place the tubes for frozen shipment in the 95kPa absorbent safety specimen bag(s) (maximum 7 tubes per bag) and seal the bag(s).



STEP 3 Line the bottom of the insulated cooler with at least 4 pounds (2 kg) of dry ice.



STEP 4 Place the safety specimen bag(s) into the insulated cooler on top of the dry ice.



STEP 5 Place at least an additional 4 pounds (2 kg) of dry ice in the insulated cooler around the specimens. Care should be taken not to overfill with dry ice so as to prevent the lid from being tightly fitted onto the cooler.



Important: Use granular dry ice—NOT chunks of dry ice—because chunks can damage samples in transit.



STEP 6 Place the lid on the insulated cooler, ensuring that it is inserted securely.



STEP 7 Place the completed requisition form(s) on top of the insulated cooler.

STEP 8 Complete the List of Contents on the inner lid of the box, close the box, and secure with tape.

STEP 9 Record information on the dry ice label as outlined in section 4.3.1.

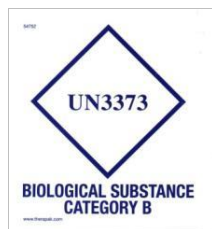
STEP 10 Complete the courier airbill as outlined in section 4.3.2.



4.3 Box Labeling and Courier Instructions

4.3.1 Box Labeling

- The outside of each shipping bag or box must clearly display the UN3373 and Biohazard symbols, as detailed below. All supplies provided by MRL for use as outer containers have these labels applied already.
- Shipments sent on a Thursday or Friday should be labeled with a Saturday Delivery label.
- If multiple ambient boxes are shipped inside of a courier envelope, an Overpack label must be used.



If shipping dry ice, record the information in Figure 6 on the dry ice label on the side of the box:

Shipper's Declaration not Required

Dry ice amount must be in kilograms

2 lbs = 1 kg
5 lbs = 2.3 kg

Airbills must have the following:

1. Dangerous goods, shippers declaration not required
2. Dry Ice; 9; UN1845
3. 1 x _____ Kg (wt)

Total number of packages and net weight of dry ice (kg)

Record the weight (kg) of the DRY ICE ONLY

Dry Ice _____ kg

Sender's name and address

Shipper Name and Address

9

UN 1845

Consignee Name and Address

Medpace
5365 Medpace Way
Cincinnati, Ohio 45227

Figure 6 – Dry ice shipment information

4.3.2 FedEx Airbill Instructions

4.3.2.1 Ambient or Refrigerated Shipments, Thermal Label Airbill (US)

- Remove the thermal label from the backing.
- Keep the top portion of the label for your records (Figure 7).
- Place the adhesive label on the side of the bag or box. Place a Saturday Delivery sticker on the package if mailed on Thursday or Friday.



Important: Thermal label airbills contain a billing reference to the protocol and site number for tracking purposes; therefore, use airbills Only for shipping samples for the study for which they are provided.

Retain this section for site records

Invo: DG Shippers Dec Date : 28May15		Shipping :	0.00
Custo: RTN GEN124/001 Weight : 1 LBS		Special :	0.00
Phone : (513)366-3270 COD :		Handling :	0.00
Dept :		DV :	0.00
		Total :	0.00

SVCS: PRIORITY OVERNIGHT TRCK: 5415 2092 3141	
--	--

ORIGIN ID:OXDA (111) 111-1111 SITE RECIPIENT VALIDATION TEST 123 MEDPACEWAY SUITE 100 CINCINNATI, OH 45227 UNITED STATES US	SHIP DATE: 28MAY15 ACTWGT: 1.0 LB MAN CAD: 980063/CAFE2807 BILL SENDER
---	---

TO PRODUCT RETURN
MEDPACE LABORATORIES
5365 MEDPACE WAY

CINCINNATI OH 45200

(513) 366-3270 REF: RTN GEN124/001
 RTN: RTN PO: UM 3373 BIOLOGICAL SLB B
 INV: DG SHIPPERS DEC NOT REQUIRED

5365 MEDPACE WAY
 CINCINNATI OH 45200

5415 2092 3141

FedEx Express

E

RETURNS MON-SAT
PRIORITY OVERNIGHT

45200
 OH-US

Figure 7 – Ambient or Refrigerated Shipments, Thermal Airbill (US)



Note: When ordering additional thermal label airbills, you must specify whether you need labels for ambient/refrigerated or frozen shipments.

4.3.2.2 Frozen Shipments, Thermal Airbills (US)



Important: Ensure you are using a label specific for dry ice for all frozen shipments.

- Remove the thermal label from the backing.
- Keep the top portion of the label for your records (Figure 8).
- Place the adhesive label on the side of the bag or box. Place a Saturday Delivery sticker on the package if mailed on Thursday or Friday.



Important: Thermal label airbills contain a billing reference to the protocol and site number for tracking purposes; therefore, use airbills only for shipping samples for the study for which they are provided.

Retain this section for site records

Invo: DG Shippers Dec Date : 28May15 Cueto: RTN GEN124/001 Weight : 10 LBS Phone : (513)366-3270 COD : Dept : DV : 0.00 Total : 0.00	Shipping : 0.00 Special : 0.00 Handling : 0.00 Total : 0.00
Svcs: PRIORITY OVERNIGHT ICE TRK: 5415 2092 3163	
ORIGIN ID: OXDA (111) 111-1111 SITE RECIPIENT VALIDATION TEST 123 MEDPACEWAY SUITE 100 CINCINNATI, OH 45227 UNITED STATES US	SHIP DATE: 28MAY15 ACTWGT: 10.0 LB MAN CAD: 980063/CAFE2807 DRY ICE: 4.5 KGS BILL SENDER

**TO PRODUCT RETURN
MEDPACE LABORATORIES
5365 MEDPACE WAY
CINCINNATI OH 45200**

(513) 366-3270 REF: RTN GEN124/001
RNA: RTH INV: DG SHIPPERS DEC NOT REQUIRED PO: UN 3373 BIOLOGICAL SUB B

FedEx Express

TRK# 5415 2092 3163

**RETURNS MON-SAT
PRIORITY OVERNIGHT
ICE
45200**

Dry ice specification for frozen shipments

Figure 8 – Frozen Shipments, Thermal Airbill (US)

4.3.3 Scheduling Courier Pick-Ups

- A memo indicating the local courier contact information and the cut-off time by which the local courier must be contacted to ensure a same day pick-up is provided to each site as part of initial supplies. It is the site's responsibility to time collections so that samples can be shipped on the day of collection, if possible.
- Courier assignments are made based on efficiencies within each country or region. Sites may deviate from the courier assignment only with the written approval of the Sponsor or CRO.
- FedEx Account Number: 2986-1476-6
- **There are no pick-ups on Sundays or public holidays.**

Refer to sections 1-**Error! Reference source not found.** of this manual for general instructions and information.

5 SBT777101-01 Quick Reference Chart

- Refer to Appendix F | Quick Reference Chart for a listing of profiles/tests to be performed at each visit and abbreviated specimen collection and processing procedures, shipment temperatures, and shipment frequencies.
- The total blood volume required for this study for samples analyzed or managed by Medpace is 696 mL.

6 SBT777101-01 Contact Information

Re-sending of laboratory reports, additional supplies, or general questions:

- Contact Client Services at +1.513.366.3270/+1.800.749.1737
- MRL-US-PA@medpace.com

Complex Protocol-Related / Technical Questions:

- Contact Project Management at +1.513.366.3270 / +1.800.749.1737
- Project Coordinator: Amanda Rellahan x11504; a.rellahan@medpace.com
- Project Coordinator: Bradley Meyer x7612581; b.meyer@medpace.com
- Project Coordinator: Riley Steward x16691; r.steward@medpace.com

7 SBT777101-01 Requisitions

Refer to section 3 of this manual for general information and instructions on the use of requisition forms.

Each subject will be given a Laboratory Subject ID which will be assigned sequentially at each site, be pre-printed on the requisition forms, and will remain consistent throughout the duration of the trial.

- The subject ID format for this trial will be S01-XYX-ZZZ (3 digit prefix – 1 digit country code + 2 digit site – 3 digit subject)
- The following information will be collected in the header of the requisition forms:

Visit	Information	Format	Notes
All Visits All Samples	Year of Birth	yyyy*	
	Age	--	
	Date of Collection	DD-MMM-YYYY	Ex: 04-JUL-1776
	Time of Collection	HH:MM (24-hour clock)	
	Sex at Birth	M / F (checkbox)	
All Visits Cryo Synovial Biopsy & FFPE Synovial Biopsy	Biopsy Site	Free Text	
	Biopsy Date of Collection	DD-MMM-YYYY	
All Visits FFPE Synovial Biopsy	Transferred to Ethanol	Y/N (checkbox)	

8 SBT777101-01 Sample Collection and Processing

- The phlebotomist should become familiar with the lab kit supplies, order of draw, and sample processing instructions prior to collection.
- Check the expiration date of laboratory supplies in advance.

- Prepare the requisition forms required for the specific visit corresponding to the subject's ID.
- Phlebotomy should be performed using universal precautions and according to site guidelines.
- All tubes should be filled completely to ensure adequate volume for testing.
- Label the tubes using the provided labels on the requisition forms and make a copy of the forms for your records.

8.1 Venous Blood Collection

8.1.1 Order of Tube Collection

Refer to the Quick Reference Chart for proper order of collection. Tubes must be collected in the same order as listed on the Quick Reference Chart to avoid carryover of additives.

SST >> CPT NaHep >> EDTA

8.1.2 Blood Specimens – Centrifugation

- We recommend using swinging bucket centrifuges for high-quality results.
- Refer to Appendix B, Centrifuge Conversion Chart, for sample-specific centrifugation time and force, in addition to instructions on the conversion from g(RCF) to RPM.
- Samples should always be visually inspected following centrifugation to ensure complete separation of the red cells below and a clear plasma/serum layer above.
- Troubleshooting: When looking at the tube in the upright position, if the gel does not form a horizontal barrier between serum (clear layer) and cells (see unspun or partially spun examples in Figure 9), please ensure that clotting time before centrifugation and resting time after centrifugation are respected for all future collections. In addition, please ensure centrifuge is well calibrated and that g(RCF) to RPM conversion was performed (refer to conversion table in Appendix B). **Do not** re-spin tube.

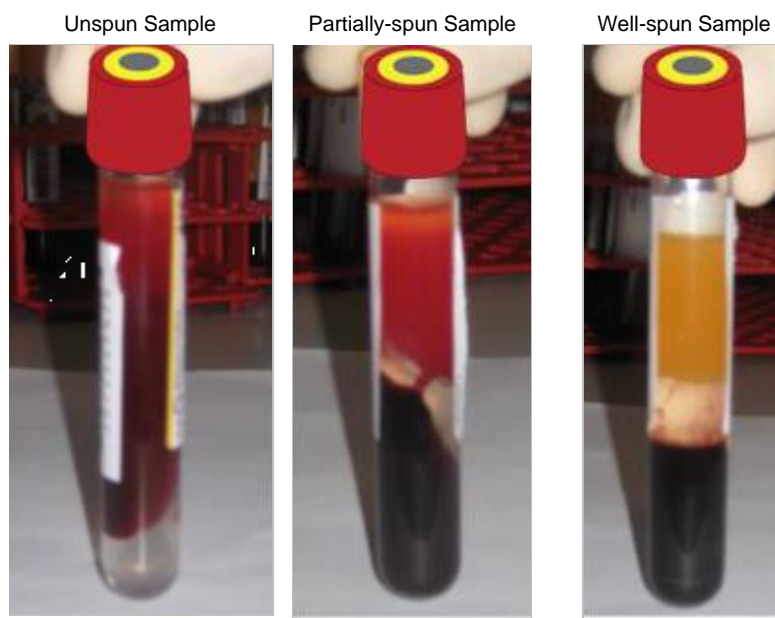


Figure 9 – Centrifuged Samples

8.1.3 ADA

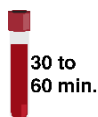
7.0mL Serum Separator Tube/SST (Red or Gold Top) – Serum Sample for ADA (Anti-drug Antibody)



STEP 1 Fill the tube completely.



STEP 2 Mix immediately by gently inverting the tube 5 times.



STEP 3 Allow the blood to clot in the upright position for 30 to 60 minutes.



STEP 4 Within 60 min of collection, centrifuge the tube for 10 to 15 minutes at 1800 g to 2200 g (*RCF not RPM*). **The SST tube should NOT be refrigerated prior to centrifugation.** There should be complete separation of serum and blood cells via the separation gel. If the serum is not separated from the blood after centrifugation, re-centrifuge the sample until the serum is separated

STEP 5 Using a transfer pipette, aliquot 0.5mL of serum each into the first 2 x 2.0 mL Sarstedt cryovials and divide the remaining serum between the other 2 x 2.0 mL Sarstedt cryovials, leaving a small amount on top of the separator gel. Discard the collection tube.



STEP 6 Store at $\leq -20^{\circ}\text{C}$ until shipping

STEP 7 Ship cryovials to MRL frozen in weekly batches.

8.1.4 Exploratory Markers - Serum

7mL Serum Separator Tube/SST (Red or Gold Top) – Serum Sample for exploratory markers



STEP 1 Fill the tube completely.



STEP 2 Mix immediately by gently inverting the tube 5 times.



STEP 3 Allow the blood to clot in the upright position for 30 to 60 minutes.



STEP 4 Within 60 min of collection, centrifuge the tube for 10 to 15 minutes at 1800 g to 2200 g (*RCF not RPM*). **The SST tube should NOT be refrigerated prior to centrifugation.** There should be complete separation of serum and blood cells via the separation gel. If the serum is not separated from the blood after centrifugation, re-centrifuge the sample until the serum is separated.

STEP 5 Using a transfer pipette, aliquot 0.5mL of serum each into the first 2 x 2.0 mL Sarstedt cryovials and divide the remaining serum between the other 2 x 2.0 mL Sarstedt cryovials, leaving a small amount on top of the separator gel. Discard the collection tube.



STEP 6 Store at $\leq -20^{\circ}\text{C}$ until shipping

STEP 7 Ship cryovials to MRL frozen in weekly batches.

8.1.5 PBMC (collection)

10.0mL Sodium Heparin Tube (Green Top) – PBMC sample for RCL, PBMC sample for exploratory biomarkers, and PBMC sample for cellular immunogenicity



STEP 1 Fill the tube completely.



STEP 2 Mix immediately by gently inverting the tube 8-10 times.

STEP 3 Do NOT centrifuge. Do NOT open tube.



STEP 4 Ship tube to MRL ambient **on day of collection** and submit PBMC Sample submission form located in Appendix H.

8.1.6 Exploratory Markers - Plasma

4.0mL K2EDTA (Purple Top) – Plasma
Sample for exploratory markers



(K2 Ethylenediaminetetraacetate)



STEP 1 Fill all tubes completely.



STEP 2 Mix immediately by gently inverting the tube 8-10 times and immediately place on wet ice.



STEP 3 Within 60 min of collection, centrifuge at 4°C for 10 to 15 minutes at 1800 - 2200 g (*RCF not RPM*). There should be complete separation of the plasma and blood cells.



STEP 4 Using a transfer pipette, aliquot 0.5 mL of plasma into 4 x 2.0 mL Sarstedt cryovials (8 cryovials for Pre-Treatment) and freeze until shipment.

x4 or x8



STEP 5 Store at $\leq -20^{\circ}\text{C}$ until shipping

STEP 6 Ship cryovials to MRL frozen in weekly batches.

8.1.7 PK ddPCR

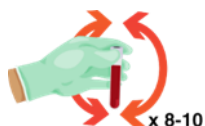
3.0mL K2EDTA (Purple Top) – Blood
Sample for PK (pharmacokinetic)



(K2 Ethylenediaminetetraacetate)

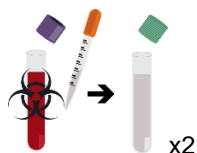


STEP 1 Fill tube completely as a partial fill results in over anticoagulated plasma, impacting results of testing.



STEP 2 Mix immediately by gently inverting the tube 8-10 times.

STEP 3 Do NOT Centrifuge.



STEP 4 Using a transfer pipette, divide blood evenly between 2 x 2.0 mL Sarstedt cryovials and freeze until shipment.



STEP 5 Store at $\leq -70^{\circ}\text{C}$ until shipping

STEP 6 Ship cryovials to MRL frozen in weekly batches.

8.1.8 Synovial Fluid (Supernatant and Cell Pellet)

4.0mL Sodium Heparin Tube (Green Top)



Refer to the Biopsy manual for detail description of synovial fluid processing.



STEP 1 Fill tube with synovial fluid 0.3 mL-4 mL

STEP 2 Mix immediately by gently inverting the tube 8-10 times



STEP 3 Within 2 hours of collection, centrifuge at room temperature at 500 g for 10 minutes.



STEP 4 The supernatant (cell free synovial fluid) should be transferred into 2.0mL Sarstedt cryovials

If 0.3 mL to 4 mL is collected, split the total volume between two tubes (x2).

If less than 0.3 mL is collected, freeze all the synovial fluid in one vial (x1).



STEP 5 Store each aliquot at $\leq -70^{\circ}\text{C}$.

STEP 6 The cell pellet should be resuspended in cold PBS.



STEP 7 Centrifuge at room temperature at 500 g for 10 minutes.

STEP 8 The new cell pellet should be resuspended in 1 mL of cold CryoStor CS10 media and immediately transferred to 1 x 2.0mL Corning cryovial.

STEP 9 Transfer the cell pellet aliquot to pre-cooled Corning CoolCell and place in $\leq -70^{\circ}\text{C}$ freezer.



STEP 10 Allow cell pellet samples to condition for at least 24 hours and no longer than 7 days in $\leq -70^{\circ}\text{C}$ before shipping.

STEP 11 Ship samples to MRL frozen in weekly batches.

8.1.9 Synovial Biopsy (Cryo and FFPE)

Refer to the Biopsy manual for detailed processing description of synovial tissue processing.

8.1.9.1 Synovial tissue fragments should be placed in 12-well plate prefilled with phosphate buffer saline (PBS). Identify and inspect tissue fragments. Select synovial tissue fragments to be placed in 10% formalin tube (Provided as a bulk supply) and then select synovial tissue samples for freezing in Cryostor CS10 medium (provided as a bulk supply), as described in Table 1 and 2.

- FFPE Synovial Biopsy (Fixed Tissue) samples will be placed in 1 x 20mL vial containing 10 mL of 10% Formalin (provided as a bulk supply). This sample must be shipped to Mosaic Laboratories L.L.C refrigerated on the day of collection. If for some reason the sample cannot be shipped on the day of collection, then it must be transferred to a 20 mL container pre-filled with 10 mL of 70% Reagent Grade Alcohol (Provided as bulk supply).
- Cryo Synovial Biopsy (Frozen Tissue) ~1mm tissue fragments will be placed in 2.0mL Corning Cryovials pre-filled with 2 mL of Cryostor CS10 medium and stored at $\leq -70^{\circ}\text{C}$ until shipping. These samples will be shipped to MRL frozen in weekly batches.
 - If more than 8 fragments are collected for freezing, split them between two tubes (x2).
 - If less than 8 fragments are collected for freezing, use one freezing vial (x1).

Table 1: Allocation of Large Joint (Knee/Ankle) Specimens:

	Preservation	Number of fragments	Format	Process
1	Formalin Fixed tissue (FFPE Synovial Biopsy)	6 – 8 ^a	Loose in a pre-filled vial with 10% formalin	Place tissue directly into 10% formalin
2	Frozen tissue (Cryovials)	6 – 8 ^a	Loose in a cryovial filled with Cryostor CS10	Cut tissue to ~1 mm pieces and place it into 2 mL cold Cryostor medium

^a Allocate 6 fragments first for fixation and then allocate 6 fragments for freezing. Divide any additional fragments evenly between the fixed and frozen samples. Collect up to 16 fragments in total (even if using Portal and Forceps method, which would typically generate 20-30 fragments).

Table 2: Allocation of Small/Medium Joint (Wrist/Digits) Specimens

	Preservation	Number of fragments	Format	Process
1	Formalin Fixed tissue (FFPE Synovial Biopsy)	4-6 ^a	Loose in 10% formalin in a pre-filled vial	Place tissue directly into pre-filled vial
2	Frozen tissue (Cryo)	4-6 ^a	Loose in CryoStor CS10 medium in a cryovial	Place tissue into 2 mL cryovial with 2 mL cold Cryostor medium

^a Allocate 4 fragments first for fixation and then allocate 4 fragments for freezing. Divide any additional fragments evenly between the fixed and frozen samples. Collect up to 12 fragments in total.

8.2 SBT777101-01 Shipment Information

FedEx is the courier for all sites in the study.

Ambient samples are shipped ambient to MRL on the day of collection.

The following samples will be shipped ambient for this study:

- PBMC

Refrigerated samples are shipped with refrigerant packs (4°C) on the day of collection. Each shipment should contain one (1) or two (2) refrigerant packs that have been frozen overnight for a minimum of twenty four (24) hours at -20°C ±5°C, NOT -75°C ±10°C, which would cause the samples to freeze during shipment. If using a saddle-bag refrigerant pack, one (1) saddle-bag per box is sufficient. If using individual refrigerant packs, please use two (2) refrigerant packs per box.

The following samples will be shipped refrigerated to **Mosaic** on the day of collection for this study:

- FFPE Synovial Biopsy

If this sample cannot be shipped on the day of collection please refer to the biopsy manual for instructions on transferring the sample to alcohol.

Frozen samples are stored at the site frozen (-20°C ±5°C or below or -70°C ±10°C or below) and shipped to Medpace Reference Laboratories on dry ice. Frozen shipments should be sent according to the schedule noted below. For weekly or monthly batches, it is recommended that shipments occur on Monday, Tuesday, or Wednesday only.

The following frozen samples will be shipped in weekly batches:

- ADA (Serum Sample for ADA (Anti-drug Antibody))
- Exploratory Markers - Serum (Serum Sample for Exploratory Markers)
- PK ddPCR (Blood Sample for PK (Pharmacokinetics))
- Exploratory Markers - Plasma (Plasma sample for Exploratory Markers)
- Synovial Fluid Supernatant
- Synovial Fluid Cell Pellet
- Cyro Synovial Biopsy

Refer to section 4 of this manual for instructions on how to package samples for shipment at various temperatures.

9 Appendix A | CAP and CLIA Certificates

(page 1 of 2)



COLLEGE of AMERICAN
PATHOLOGISTS

CERTIFICATE OF ACCREDITATION

Medpace Reference Laboratories
Cincinnati, Ohio
Traci Turner, MD, MT(ASCP)

CAP Number: 7185149
AU-ID: 1405873
CLIA Number: 36D1023277

The organization named above meets all applicable standards for accreditation and is hereby accredited by the College of American Pathologists' Laboratory Accreditation Program. Reinspection should occur prior to **May 18, 2024** to maintain accreditation.

Accreditation does not automatically survive a change in director, ownership, or location and assumes that all interim requirements are met.

A handwritten signature in black ink, appearing to read "K. G. Beavis".

Kathleen G. Beavis, MD, Accreditation Committee Chair

A handwritten signature in black ink, appearing to read "Emily Volk".

Emily Volk, MD, FCAP, President, College of American Pathologists



CENTERS FOR MEDICARE & MEDICAID SERVICES CLINICAL LABORATORY IMPROVEMENT AMENDMENTS CERTIFICATE OF ACCREDITATION	
LABORATORY NAME AND ADDRESS MEDPACE REFERENCE LABORATORIES LLC 5365 MEDPACE WAY CINCINNATI, OH 45227	CLIA ID NUMBER 36D1023277
LABORATORY DIRECTOR TRACI TURNER M.D.	EFFECTIVE DATE 06/03/2022
	EXPIRATION DATE 06/02/2024
<p>Pursuant to Section 353 of the Public Health Services Act (42 U.S.C. 263a) as revised by the Clinical Laboratory Improvement Amendments (CLIA), the above named laboratory located at the address shown hereon (and other approved locations) may accept human specimens for the purposes of performing laboratory examinations or procedures.</p> <p>This certificate shall be valid until the expiration date above, but is subject to revocation, suspension, limitation, or other sanctions for violation of the Act or the regulations promulgated thereunder.</p>	
	 Monique Spruill, Director Division of Clinical Laboratory Improvement & Quality Quality & Safety Oversight Group Center for Clinical Standards and Quality

162 Certs2_050322

10 Appendix B | Centrifuge Conversion Chart (RCF to RPM)

A certain relative centrifugal force (RCF) in g's is required to separate cells from serum/plasma. Centrifuges typically measure revolutions per minute (RPM) and not g's. The number of RPMs required to obtain a given g is calculated by the following equation:

$$\text{RPM} = \sqrt{\frac{\text{RCF} \times 10^5}{1.12 \times r}}$$

Centrifugal Force – The force that tends to make rotating bodies move away from the center of rotation (i.e., separation of cells and plasma/serum in a tube).

Relative Centrifugal Force (RCF) – The centrifugal force (see above), expressed as number of times greater than gravity (g). Example: 1200 x g, also written as 1200g.

Revolutions per Minute (RPM) – The number of rotations per minute of the centrifuge rotor (moving head).

Radius (r) – Swinging bucket centrifuges – the distance (in cm) from the center of the centrifuge head (post the head rests on) to the bottom of the bucket.

Fixed angle centrifuges – the distance (in cm) from the center of the centrifuge head (post the head rests on) to the middle of the sample compartment.

Centrifuge Radius (in cm)	Force of 1200g	Force of 1500g	Force of 1800g	Force of 2200g
8	3600 rpm	4100 rpm	4500 rpm	5000 rpm
10	3300 rpm	3700 rpm	4000 rpm	4500 rpm
12	3000 rpm	3400 rpm	3700 rpm	4100 rpm
14	2800 rpm	3100 rpm	3400 rpm	3800 rpm
16	2600 rpm	2900 rpm	3200 rpm	3500 rpm

After centrifugation, there must be complete separation of the serum/plasma and cells.

11 Appendix C | Biotin Interference

Biotin is a B vitamin that is found in a variety of foods. It helps turn the carbohydrates, fats, and proteins into energy. The amount of biotin required daily depends on the individual's age, and it is recommended that adults receive 30 µg/day [1].

High levels of biotin may cause interference with certain immunoassays using biotin-streptavidin technology [2, 3, 4]. Typical dietary biotin intake does not reach amounts capable of causing interference, but high dose biotin, as sometimes recommended in the treatment of certain diseases/conditions (e.g., multiple sclerosis (MS) and dermatologic conditions) may be sufficient to impact laboratory tests using biotin-streptavidin technology. Also, multivitamins, biotin supplements, dietary supplements for hair, skin, and nail growth may contain amounts of biotin capable of interference with laboratory tests. Such interference may cause falsely high or falsely low results depending on the assay. Physicians should advise patients to abstain from high levels of biotin intake for at least 48 hours before the blood collection for immunoassay tests [5].

The FDA provides recommendations for Health Care Providers in safety communications regarding biotin [2, 3] that can be accessed at www.fda.gov/medical-devices/safety-communications/update-fda-warns-biotin-may-interfere-lab-tests-fda-safety-communication.

Laboratory Tests with Potential Interference by High Biotin Levels	
Adrenocorticotrophic Hormone (ACTH)	Human Immunodeficiency Virus 1&2 p24 (HIV combi PT)
Alpha Fetoprotein (AFP)	Insulin
C-Peptide	Luteinizing Hormone (LH)
CA-125	Myoglobin
Calcitonin	Neuron Specific Enolase (NSE)
Carcinoembryonic Antigen (CEA)	Osteocalcin
Human Chorionic Gonadotrophin (β-hCG)	Parathyroid Hormone (PTH), Intact
Cortisol	Pro BNP
Creatine Kinase MB Isoenzyme (CK-MB)	Procollagen Type 1 N-terminal Propeptide (P1NP)
Cytomegalovirus, IgG (CMV IgG)	Progesterone
Cytomegalovirus, IgM (CMV IgM)	Prolactin
Dehydroepiandrosterone Sulfate (DHEA-S)	Prostate Specific Antigen (PSA)
Estradiol	QuickVue Pregnancy Test
Ferritin	S-100
Folate	Sex Hormone Binding Globulin (SHBG)
Folicle Stimulating Hormone (FSH)	Telopeptide C Terminal, Type 1 Collagen (β-Crosslaps)
Hepatitis A Virus Antibody (Anti-HAV), IgM, and Total	Testosterone, Total
Hepatitis B Core Antibody (Anti-HBc), IgM, and Total	Thyroid Stimulating Hormone (TSH)
Hepatitis B Envelope Antibody (Anti-HBe)	Thyroxine, Free (FT4)
Hepatitis B Envelope Antigen (Anti-HBe Ag) (Qualitative)	Thyroxine, Total (T4)
Hepatitis B Envelope Antigen (Anti-HBe Ag) (Quantitative)	Triiodothyronine, Free T3 (FT3)
Hepatitis B Surface Antibody (Anti-HBs)	Triiodothyronine, T3
Hepatitis B Surface Antigen (HBs Ag) (Qualitative)	Troponin I
Hepatitis B Surface Antigen (HBs Ag) (Quantitative)	Troponin T, High Sensitivity
Hepatitis B Surface Antigen Confirmatory (HBs Ag) (Qualitative)	Vitamin B12
Hepatitis C Virus Antibody (Anti-HCV)	Vitamin D, 25 OH

References:

[1] National Institutes of Health. Biotin fact sheet for consumers. ods.od.nih.gov/factsheets/Biotin-Consumer

- [2] U.S. Food and Drug Administration. The FDA Warns that Biotin May Interfere with Lab Tests: FDA Safety Communication, November 28, 2017.
- [3] U.S. Food and Drug Administration. UPDATE: The FDA Warns that Biotin May Interfere with Lab Tests: FDA Safety Communication. November 5, 2019.
- [4] Roche Diagnostics. Biotin facts. biotinfacts.roche.com
- [5] Chun KY. Biotin interference in diagnostic tests. ClinChem. 2017;63(2):619-620.
- [6] U.S. Food and Drug Administration. Biotin Interference with Troponin Lab Tests – Assays Subject to Biotin Interference.

12 Appendix D | Commercial Invoice



Commercial Invoice

Complete and fax this form to Medpace Reference Laboratories at
001-513-366-3273 each time an international shipment is made.

Date of exportation: _____

Shipper/Exporter:	Consignee:
Country of Origin/Export:	Importer: Same as above
International Tracking Number	Country of Ultimate Destination:

Pkg. #.	No. of Vials	Unit	Description	Unit Value	Total Value
1		Each	Human specimens, non-infectious UN3373 Category B for diagnostic purposes only. No commercial value. Value for customs purposes only. Tariff code 3002.12.0090		\$1.00
			Packed in Compliance with IATA Packing Inst. 650 / UN3373 Biological Substance Category B		
			Human blood, tissue or urine (human material that was neither inoculated with or exposed to infectious agents of agricultural concern, including zoonotic agents; the material contains no animal or non-human primate material and is not of tissue culture origin)		
			These are research specimens for investigational use only and are not for resale, having no commercial value. The declared value for customs purposes only is \$1.00 (USD)		

Total # Packages	Total Weight	Total Specimen Volume (mL)	Total Invoice Value
1			\$1.00 (USD)

THESE COMMODITIES ARE LICENSED FOR THE ULTIMATE DESTINATION SHOWN

Print Name _____

Title _____

Sign Name _____

Date _____

13 Appendix E | Alternate Specimen Handling/Shipping Arrangements

(page 1 of 2)

13.1 Alternate Specimen Handling/Shipping Arrangements

Sites in the following locations send specimen shipments to MRL Cincinnati, OH, USA: North America, and Central and South America.

These instructions apply to emergency or other unusual circumstances that interrupt or affect normal shipping or delivery of samples to the central laboratory. Sites will be notified by MRL or the Sponsor/CRO when circumstances are such that alternate specimen handling and shipping arrangements should be implemented. Be alert for a message with specific instructions. If a site has concerns about shipping and has not received a message, information should be obtained from their CRA, from their MRL Project Manager, or by checking the MRL website.

13.1.1 Suggested Contingency Specimen Handling

If safe transport cannot be assured within three to four days of collection, the Sponsor/CRO may direct that sites follow any of the suggested instructions:

- Perform safety chemistry, hematology, urinalysis, hemoglobin A1C, and other safety tests at a local laboratory.
- Retain an aliquot of 1 mL of safety chemistry serum, labeled with the chemistry specimen label, in a small transfer vial for later shipment to MRL. Freeze at $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ or below.
- Freeze serum or plasma for lipid profiles and reserves in the freezer at $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ or below.
- Maintain all frozen specimen at $-20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ or below until further notice.

13.1.2 Specimen Shipment to Alternate Central Laboratory

In emergency situations, sites in North America, and Central and South America might receive written instructions from the central laboratory or Sponsor/CRO to re-route specimens to the MRL EU location:

Medpace Reference Laboratories BVBA

Attn: George Andronos

Technologielaan 19

B-3001, Leuven Belgium

Tel: +32-16-407775

Fax: +32-16-407775

- A blank courier airbill should be obtained from the local courier.
- For receiver, enter the address of Medpace Reference Laboratories BVBA as listed above.

(page 2 of 2)

- For description of contents, enter:









BIOLOGICAL SUBSTANCE, CATEGORY B UN3373,
PACKED IN COMPLIANCE WITH IATA PACKING INSTRUCTION 650


- Prepare **three copies** of a commercial/proforma invoice with the address of Medpace Reference Laboratories BVBA as the receiver of the package. The commercial/proforma invoice must contain the following information/statements (see Appendix E, Commercial Invoice):
 - Number of samples, Total sample volume
 - Human Blood and Urine Specimens for Clinical Research / Diagnostic Purposes, Not Infectious / Not Contagious
 - Biological Substance, Category B; Packed in Compliance with IATA Packing Inst. 650 / Diagnostic Specimens UN3373
 - Human blood, tissue or urine (human material that was neither inoculated with or exposed to infectious agents of agricultural concern, including zoonotic agents; the material contains no animal or non-human primate material and is not of tissue culture origin)
 - These are research specimens for investigational use only and are not for resale, having no commercial value. Declared value for Customs purposes only.
 - These commodities are licensed for the ultimate destination shown.





Medpace Reference Laboratories will provide you with the proper courier account number and will assist you in shipping the specimens correctly.






14 Appendix F | Quick Reference Chart

(page 1 of 4)

Screening	Study Period		Pre-Treatment [d]												Safety Follow Up												ET
	Study Week	-8 to -7	-4 to -1	1	2	4	6	8	10	12	18	24	36	48/25													
Label	Collection	Testing	Study Day (Visit Window)	1	2	4 or 5	7E1	11E1	14E2	21E2	28E2	42E2	56E2	70E2	84E2	134E7	168E7	202E7	334E7								
ADA	 7 mL SST	Serum sample for ADA									X		X		X					X							
Exploratory Markers - Serum	 7.0 mL SST	Serum sample for exploratory markers			X		X		X		X		X		X		X		X	X							
PBMC (collection) [b]	 10.0 mL NoHep	PBMC for Cellular Immunogenicity, Exploratory Biomarkers, RCL			X (x4) Cx1 Ex1	X(x2) Ex2	X(x2) Ex2	X(x2) Ex2	X(x2) Ex2	X(x2) Ex2	X (x3) Cx1 Ex2	X(x2) Ex2	X (x3) Cx1 Ex2	X(x2) Ex2	X (x3) Cx1 Ex2	X(x2) Ex2	X (x3) Cx2 Ex1	X(x2) Ex2	X (x3) Cx1 Ex1	X (x2) Cx1 Ex1							
PK ddPCR	 3.0 mL K2EDTA	Blood sample for PK(ddPCR)			X	X(x1)	X		X		X		X		X		X		X	X							
Exploratory Markers - Plasma [c]	 4.0 mL K2EDTA	Plasma sample for exploratory markers			X(x2)	X			X		X		X		X		X		X	X							
Footnotes																											
General Note: Samples collected outside the listed scheduled visits should use the Unscheduled Visit forms provided at the back of the requisition binder.																											
[a] The PK sample collected on study Day 2 should be collected at approximately the same time of day that the initiation of study drug took place on Study Day 1 (i.e., 1 hour). An unscheduled PK sample should be collected within 30 minutes of a suspected infusion related event.																											
[b] 4 tubes will be collected at Pre-treatment. 3 tubes will be collected of Day 28, Day 56, Day 84, Day 168 and Day 336. For all other visits only 2 tubes will be collected. X = total. C = Cellular Immunogenicity, E = exploratory Biomarkers, R = RCL, number of tubes for each collection designated for each visit as outlined in protocol SOA.																											
[c] 2 tubes will be collected at Pre-treatment. For all other visits only 1 tube will be collected.																											
[d] The Pre-treatment visit samples may be redrawn any number of times. For redraws of the Pre-treatment visit samples please use the Pre-treatment Reassessment Visit 2 forms in the back of the requisition binder next to the Unscheduled Visit forms.																											
Order of Draw																											
 →  → 																											

	Label	Collection	Testing	Safety Follow Up																ET			
				Study Period	Screening	Pre-Treatment		1				2	3	4	6	8	10	12	24		36	48/ES	
				Study Week	-4 to -7	-4 to -1	-10 to -4	1	2	4 or 5	721	1121	1422	2122	2822	4222	5622	7022	8423	16827	25227	33627	
Synovial Fluid Supernatant					X (a)																		X (c) (d)
Synovial Fluid Viable Cells	4.0 mL NoKeep				X (a)																		X (c) (d)
Cryo Synovial Biopsy					X (a)																		X (c) (d)
FFPE Synovial Biopsy	Solid Mission Needles and 12-Well Plates				X (a)																		X (c) (d)
Footnotes																							
General Note: Samples collected outside the listed scheduled visits should use the Unscheduled Visit forms provided at the back of the requisition binder.																							
(a) Synovial biopsy and/or synovial fluid collection during the Pre-treatment period should be performed after enrollment and at least one week prior to the planned dosing visit.																							
(b) The synovial biopsy/fluid collection can be performed at or up to 1 week after the scheduled assessment visit.																							
(c) The timing of the synovial biopsy and/or synovial fluid collection in may be changed based on evaluation of data from the first dose escalation cohort.																							
(d) The synovial biopsy sample/fluid collection at Week 12 and at the ET visit is optional.																							

Sample	Tube	Collection & Processing	Aliquots	Shipping	Notes
ADA		Fill tube completely with blood.	4 x 2.0 mL Sorted microtube	Ship to MRL frozen in weekly batches	
		Immediately after collection, gently invert tubes 5 times.			
		Allow tubes to clot for a minimum of 30 minutes post collection, keeping tubes vertical.			
		Within 60 minutes of collection, centrifuge at 1,800 - 2,200g for 10-15 minutes to allow the gel barrier to migrate between the cell and serum layers. If the serum is not separated from the blood after centrifugation, re-centrifuge the sample until the serum is separated			
Exploratory markers - Serum		Using a transfer pipette, aliquot 0.5mL of serum each into the first 2 x 2.0 mL cryovials and divide the remaining serum between the other 2 x 2.0mL cryovials, leaving a small amount on top of the separator gel. Discard the collection tube.	4 x 2.0 mL Sorted microtube	Ship to MRL frozen in weekly batches	
		Store at ≤-20°C until shipping			
		Ship cryovials to MRL frozen in weekly batches.			
FBMC (collection)		Fill all tubes completely with blood.	None	Ship to MRL ambient on day of collection	
		Gently invert 8-10 times to avoid clotting.			
		Do NOT Centrifuge. Do NOT open tube.			
		Ship tube to MRL ambient on day of collection			
Exploratory markers - Plasma		Fill all tubes completely.	4 or 8 x 2.0 mL Sorted microtube	Ship to MRL frozen in weekly batches	
		Mix tubes after collection by gently inverting 8-10 times and immediately place on wet ice.			
		Within 60 minutes of collection, centrifuge at 4°C at 1800g - 2200g for 10-15 minutes.			
		Using a transfer pipette, aliquot 0.5 mL of plasma into each of 4/8 for Pre-treatment] x 2.0 mL cryovials and freeze until shipment.			
	4.0 mL K2EDTA	Store at ≤-20°C until shipping			
		Ship cryovials to MRL frozen in weekly batches.			

Sample	Tube	Collection & Processing	Aliquots	Shipping	Notes
PK ddPCR		Fill tube completely as a partial fill results in over anticoagulated plasma, impacting results of testing. Mix tube immediately after collection, gently inverting 8-10 times Using a pipette, divide blood equally between 2 separate aliquots Freeze immediately on dry ice and keep at ≤-70°C until shipping. Ship cryovials to MRL frozen in weekly batches.	2 x 2.0 mL Starsted microtubes	Ship to MRL frozen in weekly batches	
	3.0 mL K2EDTA				
Synovial Fluid Supernatant	 4.0 mL NaHEP	See Lab Manual for instruction.	2 x 2.0 mL Starsted microtube	Ship to MRL frozen in weekly batches	
Synovial Fluid Viable Cells	 4.0 mL NaHEP	See Lab Manual for instruction.	1 x 2.0 mL Corning Cryovials	Ship to MRL frozen in weekly batches	
Cryo Synovial Biopsy	 Bard Mission Needles and 12-Well Plates	See Lab Manual for instruction.	2 x 2.0 mL Corning Cryovials	Ship to MRL frozen in weekly batches	
FFPE Synovial Biopsy	 Bard Mission Needles and 12-Well Plates	See Lab Manual for instruction.	1 x 20.0 mL tube	Ship to MacroS Biotechnology (4°C) day of collection	DO NOT SEND TO MRL

15 Appendix G | Re-Supply Form



LABORATORY RE-SUPPLY FORM – MRL UNITED STATES

22AUG2023 | V1

Scan completed form and email to MRL-US-PA@Medpace.com

Sonoma Biotherapeutics SBT777101-01 SBT7101
Sponsor Protocol Number Laboratory Study Code Request Date Date Supplies Needed

Site #/PI Last Name Requester Name Requester Email

Order Prepared By Date Shipped Tracking #

Delivery timeframe (from shipment date)

☐ One Week ☐ Express

Courier

☐ FedEx ☐ OCASA ☐ UPS

☐ Other:

Requests received before 3pm are processed by the next business day.

Requests received after 3pm are processed within 2 business days.

Internal Use Only		SUPPLIES	QUANTITY REQUESTED
Pack	QC		
		Laboratory Kits	
		• Screening Kit A	
		• Pre-Treatment Kit B	
		• W1D2, W1D7, W2D14, W3D21, W6D42, W10D70, W16D126, & W36D252 Kit C	
		• W1D4or5 & W2D11 Kit D	
		• W4D26 Kit E	
		• W6D56 & W48D336/ES Kit F	
		• W12D64 Kit G	
		• W24D168 Kit H	
		• ET Kit I	
		Miscellaneous Supplies	
		• Corning CoolCell LX Cell Freezing Container	
		• Cryostor CS10 Freezing medium 10 mL vial	
		• Bard biopsy needles with coaxial introducers (14G – 10cm)	
		• Bard biopsy needles with coaxial introducers (14G – 6cm)	
		• Bard biopsy needles with coaxial introducers (16G – 10cm)	
		• Bard biopsy needles with coaxial introducers (16G – 6cm)	
		• 12 well plate, flat bottom	
		• Sterile scalpel	
		• fine point forceps	
		• 70% Reagent Grade Alcohol	
		• 20mL SecurTainer (for FFPE samples transferred to Alcohol)	
		• 10% Neutral Buffered Formalin prefill tube 20 mL/10 mL	

Internal Use Only		SUPPLIES	QUANTITY REQUESTED
Pack	QC		
		Shipping Supplies	
		• Pre-Printed MRL Frozen Airway Bills	
		• Pre-Printed MRL Ambient/Refrigerated Airway Bills	
		• Pre-Printed Ambient/Refrigerated Airway Bills to Mosaic Attn: Hillary Winkel/Jessica Macapulay 60 Empire Drive Lake Forest, CA 92630	
		• Medium Frozen Shippers	
		• Ambient/Refrigerated Combo Shippers	
		• 95kPA Bag	
		• UN3373, Biohazard, Overpack, Dry Ice, Saturday Delivery Labels	
		Requisition Binders	
		Subject #s _____ - _____ (range)	
		Special Instructions:	

16 Appendix H | PBMC Sample Submission Form



PBMC SAMPLE SUBMISSION FORM

Sponsor:	Sonoma Biotherapeutics
Protocol:	SBT777101-01
Site Name:	
Site Number:	
CRC Phone:	
CRC Email:	

IMPORTANT REMINDERS:

- Samples should be sent to MRL on the Day of Collection
- PBMC samples should be collected and sent Monday-Friday ONLY – NO weekend shipments
- Please include a copy of this form in the box with the sample shipment

Subject Identification

S	0	1	-				-			
Prefix				Site Number				Subject Number		

FedEx Tracking Number(s) _____

Date of Collection: ____ / ____ / ____
Day Month Year
(Example: 18 / Jul / 2012)

Time of Collection: ____: ____ AM/PM (circle)

Kindly fax and email this form before 3PM (EST)* to:

Fax: +1.513.366.3273 Attn: Sample Processing Lab

E-mail: B.Meyer@Medpace.com and MRL-US-PM@Medpace.com

*FedEx Tracking Number can be sent after 3PM (EST) to the above contacts.