SOP 2.5.5 Blood Collection for Proteomics using Plasma

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Version Number 1.0

	Name	Title	Date
Author			
Authoriser			

Effective Date	
Version Number	

Purpose

This SOP describes the procedure for blood collection for plasma isolation for proteomic studies.

Responsibility

It is the responsibility of the research personnel carrying out this procedure to ensure that all steps are completed both competently and safely.

Equipment/reagent requirements

- Blood collection system
- Personal protective equipment; gloves, laboratory coat, protective glasses
- Blood collection tube: plasma separator tube, BD P100 proteomics tube
- A polystyrene container with ice to maintain temperature at 4°C for processing and /or transport to processing laboratory, or alternatively use a water-bath (plus a thermometer) with iced water to maintain the temperature at 4°C or a pre-conditioned gel pack at 4°C
- Refrigerator (2-4°C) if overnight sample storage is required
- Freezer -20°C/-80°C if short-term storage is required
- Centrifuge capable of generating a G force of 1,100-1,300g at the bottom of the tube

SAFETY PRECAUTION: The BD P100 evacuated blood collection tube contains chemical additives. It is important to avoid possible backflow from the tube, which may lead to the possibility of adverse patient reaction. To guard against backflow observe the following precautions:

- Use a blood collection set with a safety lock, for example a BD Vacutainer® Safety-

Lok™ Blood Collection Set.

- Place the arm in a downward position.
- Hold tube with stopper upper-most.
- Release tourniquet as soon as blood starts to flow into the tube.
- Ensure that tube additives do not touch the stopper or the end of the needle during venipuncture.

Procedure

1. Draw blood directly into the evacuated tube. Filling the blood collection tube to the black mark on the tube label indicates that the correct amount of blood has been drawn. Under-filling or overfilling of the tube may affect laboratory results.

2. Invert the tube 8-10 times to avoid the formation of microclots.

3. The blood collection tube is labeled appropriately either with a unique study identification number and/or a bar code label generated electronically

4. Record the time that the sample was taken in the study specific documentation or data management system.

5. Centrifuge tubes within *2 hours* of collection to separate plasma from cells. Maintain tubes at 4°C during processing. Place the blood collection tubes in a centrifuge and spin at 1300g for 10 min at 4°C. Record the time processing was initiated in the study specific documentation or data management system.

6. Using a plastic Pasteur/transfer pipette collect plasma being sure not to get too close to the cell layer or gel. Distribute the plasma (clear liquid) among 0.5mL cryostorage tube(s) maintained at 4°C which have been labeled as per point 3 above.

7. Transfer tubes to a -80°C freezer for storage. If there is not a -80°C freezer on site store at -20°C. If neither is available transport to the processing laboratory at 4°C in a polystyrene container on ice. The specimen should reach the -80°C freezer as soon as is practicable or within a maximum of 48 hours following collection. Record the time of storage in the study specific documentation or data management system.

Note: As a general rule samples should be processed and reach the appropriate storage conditions as soon as is practicable. The maximum time limits proposed are guidelines and should be read in association with a study specific protocol.

Change History

SOP Number	Effective Date	Significant Change	Previous SOP No.