BD[™] P100 Blood Collection Tube Instructions for Use

Components of the **BD™ P100 Blood Collection System**

- BD Hemogard[™] Closure
 - Mechanical Plasma Separator
 - Anticoagulant and Protease Inhibitor Cocktail

Order of Draw

- 1 Tubes for Sterile samples
- 2 Tubes for Coagulation Studies
- **3** Serum and Serum Separator tubes

Approx 8.5 ml

4 Tubes with other additives
 (e.g., BD Vacutainer[®] Heparin, EDTA,
 BD P100, PAXgene[®] RNA Tube)

• PET Plastic Tube

Tube Storage

- Tubes should be stored at 4-25°C (39-77°F) prior to use.
- Tubes should not be used beyond the designated expiration date.
- The expiration date is assigned to ensure adequate vacuum, barrier, or additive performance.





Collection

Required Equipment



A BD P100 Tube

- B BD Vacutainer[®] Safety-Lok[™] Blood Collection Set or Push Button Blood Collection Set
- C Single Use Holder



Perform venipuncture with the blood collection set using your institution's recommended standard procedure for phlebotomy.



Center the P100 tube in the single use holder and push tube onto nonpatient needle in one swift movement. The non-patient needle must penetrate the tube stopper and the mechanical separator in the center.

*Note

If the needle penetrates the stopper or mechanical separator in the sidewall, this could result in premature vacuum loss and/or premature separation of the mechanical separator. If vacuum loss or premature separation of the mechanical separator occurs, discard the tube and redraw the specimen with a new tube.



Position tube vertically below the patient's arm during collection. Allow vacuum to be exhausted (approximately 10 seconds) prior to removing the tube from the non-patient needle.



Slowly invert tube 8-10 times immediately after blood collection to mix the blood and additives.

Collection Troubleshooting

P100 Troubleshooting Guide: The most common challenges associated with the phlebotomy of the P100 tube have similar cause and solutions.

	Problem	Possible Cause	Solution
	Loss of Vacuum Premature Launch of the Mechanical Separator	The non-patient needle did not penetrate the tube stopper and the mechanical separator in the center. If the needle penetrates the stopper or mechanical separator in the sidewall, this could result in premature vacuum loss or premature launch of the separator.	Discard the tube. Using a new Blood Collection Set make sure single use holder is properly seated on the non-patient needle and that the luer adapter is tightly attached to wingset. Center the non patient needle on the P100 tube and push tube onto non- patient needle in one swift motion.
		The non patient needle is bent due to multiple tubes being collected prior to the P100 tube.	
-	Flash is the rare occurrence of a small amount of blood that enters the space between the mechanical separator and stopper	If the tube is very slowly inserted onto the non patient needle, blood could enter the tube prior to non patient needle penetrating the mechanical separator, resulting in blood trapped between the stopper and mechanical separator.	

Centrifugation



After mixing, centrifuge as soon as possible, but within 2-4 hours for best results, at 2500*g* for 20 minutes in a **swing bucket** or **45 degree fixed angle rotor**.

Use of a 30 or 33 degree fixed angle rotor **will not** provide sufficient *g* force to ensure complete separation of plasma and is not recommended. **Alternate Centrifugation**

conditions if 2500*g* cannot be met:

- 1100g for 30 minutes
- 1600g for 30 minutes

It is important to use the appropriate size tube holders and/or cushions for your centrifuge suitable to accommodate 16x100mm tubes with hemogard closure. Some centrifuges and appropriate holders are listed below for your convenience.

Centrifuge	Holder	Comments
Drucker Model 614 B	Use the 16x100mm tube holder with added cushion.	The cushion added to the 16x100mm tube holder positions the lower rim of the Hemogard [®] closure just above the outer rim of the tube holder during centrifugation.
Unico® PowerSpin™ LX	Use 17x100mm white centrifuge tube holder.	Recommended holder. No cushion required. No forceps required to remove tube from centrifuge holder.
BD Clay Adams [™] Compact II	17x120mm centrifuge tube holder is only one available for this model.	Use a generic 1 inch cushion in the holder for safe operation.

Transport and Storage

Recommended







Freeze aliquot **first** at -20°C, then transfer



dry ice.

If shipping, transport Store aliquots plasma aliquots on at -70°C to -80°C.

Δ







Avoid multiple freeze-thaw cycles.

Alternate Scenario 1:* If it is not possible to aliquot plasma prior to transport

to -80°C.

- 1 If it is not possible to aliquot plasma after centrifuging at the collection site, freeze the tubes upright in a wire or plastic rack prior to shipping. Note: Stryrofoam racks should not be used as they can contribute to uneven freezing and tube breakage.
- 2 Freeze specimen step wise from -20°C to -80°C. Do not place tubes directly on dry ice when freezing or shipping.
- 3 Once the tubes arrive, thaw on ice and aliquot the plasma into cryovials. Store at -70°C to -80°C.

Continue with Steps 5-6 as in recommended protocol above

Alternate Scenario 2:* If freezing at ultra low temperatures is not available at the collection site

When a sample will

be analyzed, thaw

aliquot on ice.

- 1 If it is not possible to freeze the plasma at ultra low temperatures at the collection site, the tubes should be placed upright in wire or plastic racks, or wrapped individually in bubble wrap. Note: Stryrofoam racks should not be used as they can contribute to uneven freezing and tube breakage.
- 2 Ship at room temperature or on ice packs.
- 3 Once the tubes arrive, aliquot the plasma into cryovials and store at -70°C to -80°C.

Continue with Steps 5-6 as in recommended protocol above

Alternate Scenario 3:* Shipment of whole blood

It is not recommended to ship P100 tubes which have not been centrifuged. A greater rate of degradation of peptides can be seen in samples that have not been separated in 2-4 hours. If this is the only method available at the collection site, ship the samples at room temperature and aliquot upon arrival as in Scenario 2 above.

*Alternate scenarios are sub optimal and might affect specimen integrity.

For more information on BD Proteomics products visit: www.bd.com/proteomics



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