

Purpose:

The HEMACollect™•PROTEIN blood collection tube (BCT) is intended for the collection and preservation of whole blood for the stabilization of draw-time concentrations of plasma proteins.

This product is for research use only and not for use in diagnostic procedures.

Product description:

The proprietary stabilizing liquid in the HEMACollect™•PROTEIN BCT minimizes ex vivo hemolysis and platelet activation in the 9 mL sample, while also stabilizing plasma proteins* for up to 7 days during the storage and ambient temperature transport of either whole blood or isolated plasma. These features enhance blood collection flexibility, simplify sample logistics and minimize the risk of generating inconsistent results during the pre-analytical workflow.

*Stabilization is determined from a representative subset of plasma proteins.

Stabilizing liquid:

The HEMACollect™•PROTEIN BCT contains ProteoPrecision™ technology, a proprietary stabilizing liquid (including anticoagulant) that supports the stabilization of plasma proteins in whole blood or in the isolated plasma during storage and ambient temperature transport.

Storage and stability:

1. The pre-collection storage temperature for the HEMACollect™•PROTEIN tubes is 4°C-25°C/39°F-77°F. Tubes are stable through the indicated expiration date. Do not freeze pre-collected tubes.
2. If refrigerated, allow the HEMACollect™•PROTEIN tube to come to room temperature prior to use.
3. Whole blood collected in the HEMACollect™•PROTEIN BCT is stable for up to 7 days when stored at room temperature (20°C-26°C/ 68°F-79°F).
4. Isolated plasma from whole blood collected in the HEMACollect™•PROTEIN BCT is stable for up to 7 days when stored at room temperature (20°C-26°C/68°F-79°F). (See Plasma isolation and long-term storage.)
5. Ship the HEMACollect™•PROTEIN BCT or isolated plasma in a protected upright orientation at ambient temperatures.

Important:

- Freeze-thaw cycling of the sample or extreme temperature fluctuations can compromise sample quality. Ensure the collected sample does not reach temperatures below 4°C/39°F during transport.
- Ensure the shipping and storage of whole blood collected in the HEMACollect™•PROTEIN BCT or plasma isolated from the HEMACollect™•PROTEIN BCT does not exceed 7 days.

Plasma isolation and long-term storage:

1. To isolate plasma from the HEMACollect™•PROTEIN BCT, centrifuge the tube at 1,900 × g for 15 minutes at a temperature between 4°C-25°C (39°F-77°F).
2. Carefully remove the upper plasma layer and transfer to a new conical tube (not provided). Centrifuge the plasma at 2,800 × g for 15 minutes at a temperature between 4°C-25°C (39°F-77°F).
3. Transfer the plasma into low protein-binding tubes (not provided). Avoid multiple freeze-thaw cycles.

4. To remove the HEMAcollect™•PROTEIN cap, place a thumb under the cap and push up with a slight twisting motion. When the cap is loosened, stop pushing and remove thumb. Proceed to lift the cap off and carefully remove the sample for further analysis. (For more details, see the DNA Genotek™ HEMAcollect™ Blood Collection Tube Best Practices Guide.)
5. For the long-term storage of plasma, store in low protein-binding tubes at -80°C/-112°F, or as specified in your protocol.

Collection instructions

For best practices on sample collection using venipuncture, see the DNA Genotek™ HEMAcollect™ Blood Collection Tube Best Practices Guide² on the HEMAcollect™•PROTEIN device product page <https://dnagenotek.com/globaldocs/ifu/practices-guide-MK-3068.pdf>.

1. Following CLSI PRE021, perform venipuncture to collect a blood sample.¹ For best results, use a 21G or 23G needle to limit ex vivo platelet activation and hemolysis.

Prevention of backflow

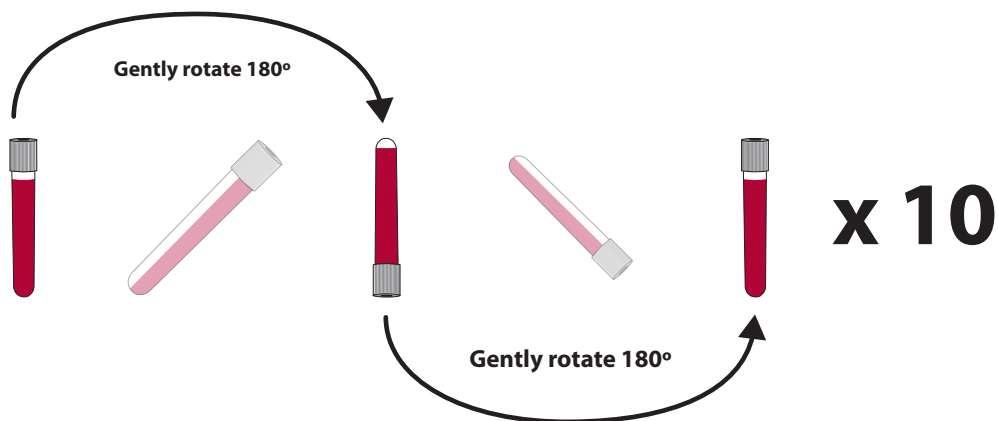
The HEMAcollect™•PROTEIN BCT contains a liquid stabilization solution, and it is important to avoid the possible backflow of the stabilizing liquid from the tube.

To prevent backflow, follow these precautions:

- a) Keep arm in the downward position during collection.
 - b) Hold the tube with the cap in the uppermost position to keep the stabilizing liquid away from the cap or from the end of the needle.
 - c) Release the tourniquet as soon as blood starts to flow into the blood collection tube.
2. Following CLSI PRE021, perform the order of draw.¹ The HEMAcollect™•PROTEIN BCT can be used for blood draw after the EDTA tube. (For more details, see the DNA Genotek™ HEMAcollect™ Blood Collection Tube Best Practices Guide.)

Note: If the HEMAcollect™•PROTEIN tube is not preceded in the draw order by a non-additive or EDTA tube, collect a discard tube using a non-additive or EDTA tube first to clear out any residual additives before using the HEMAcollect™•PROTEIN tube.

3. Allow the vacuum to be fully exhausted before removing the tube.
4. Remove the tube from the adapter and mix immediately by gentle inversion 10 times.



5. After mixing, the HEMAcollect™•PROTEIN tubes can be stored or transported as recommended. (See Storage and stability.)










Warnings and precautions:

1. For research use only. Not for use in diagnostic procedures.
2. Single use only; do not reuse the tube.
3. Since this tube contains a stabilizing liquid, avoid backflow. (See Prevention of backflow.)
4. A common issue with collected blood is that mishandling (e.g., dropping) can cause platelet activation and hemolysis.
5. Excessive centrifugation speeds over $5,000 \times g$ may cause tube breakage, exposure to blood and possible injury.
6. The storage of blood-containing tubes at or below $0^{\circ}\text{C}/32^{\circ}\text{F}$ may cause excessive hemolysis.
7. Do not use the HEMACollect™•PROTEIN tube past the expiry date.
8. The product is intended for use as supplied; do not dilute or add any additional components.
9. Overfilling or underfilling tubes will result in an incorrect blood-to-stabilizing liquid ratio which may impact the analytical performance on downstream assays. Ensure the tube is filled appropriately.
10. Handle all biological samples, disposables and sharps according to the policies and procedures of your facility.

References:

- 1 Clinical and Laboratory Standards Institute. (2025). PRE02: Collection of diagnostic venous blood specimens. Approved Standard – Eighth Edition.
- 2 DNA Genotek™ HEMACollect™ Blood Collection Tube Best Practices Guide. MK-3068. [PDF].

Label legend:

	Do not reuse
	Lot number
	Catalog number
	Use by
	Manufacturer
	Storage instructions
	Consult instructions for use
	Sterile
	For Research Use Only

Patent (www.dnagenotek.com/legalnotices)

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- Toll-free (North America): 1.866.813.6354
- All other countries: 613.723.5757
- Technical support email: support@dnagenotek.com
- Product information email: info@dnagenotek.com

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