

LITHIUM HEPARIN GREEN CAP USER GUIDE

• Contents •

- Lithium Heparin
Green Cap Tube(s) (1mL)
- User Guide



• Manufactured For •

MR Diagnostic Services LLC
Address: 540 E. Shady Lane
Neenah, WI 54956
Email: support@K9P4go.com
Website: www.caninep4.com

• Intended Use •

CanineP4.com™ anti-clotting lithium tube is designed for exactly 1 mL of whole blood. Note that the tube will be mostly full. 1 mL of whole blood is expected to produce 300-500uL of heparinized plasma. For use with other tubes, be sure to fill exactly to the fill volume or volume indicated on the tube.

• Test Principle •

Lithium heparin is used *in vitro* as an anticoagulant. The presence of anticoagulants in your sample helps prevent the formation of clots and extension of existing clots within the blood sample. Generally speaking, using anticoagulant halts the coagulation cascade, by inactivating thrombin. The active ingredient, heparin, is naturally produced and induces anticoagulant mechanisms in blood samples, preventing clots from forming when used appropriately. Lithium heparin treatment results in plasma, rather than serum after centrifugation. Heparin does not dissolve already formed clots.

• Index of Warning Symbols •

Temperature Limit



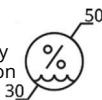
Do Not Re-Use



Do Not Use if Package is Damaged



Humidity Limitation



Fragile, Handle With Care



Keep Away From Sunlight



Keep Dry



Consult Instructions Before Use



• Precautions •

- For animal use only. Not for use in humans. Keep out of reach of children.
- This product is designed for in vitro veterinary use only.
- Follow warning symbol recommendations.
- Handle all specimens as if they contain infectious agents. observe established precautions against microbiological hazards through testing and follow the standard procedures for proper disposal of specimens.
- Wear disposable gloves and eye protection when specimens are being tested.
- **DO NOT** reuse components. Discard after use.
- **DO NOT** use after expiration date.
- **DO NOT** operate near heavy vibrations or on steep inclines.
- **DO NOT** operate in dusty conditions.
- **DO NOT** touch inside tubes.
- **DO NOT** dispose sharps in standard trash.

• Recommended Materials •

- **Centrifuge.** For collection of serum/plasma, centrifugation is required.

• Best Practices •

- Do not transfer blood treated with other chemicals or taken from a vacutainer tube with a colored cap into this tube. Only use fresh blood from a needle syringe or when using an additive-free vacutainer with these lithium anti-clot tubes.
- Lithium tubes create heparinized plasma. Plasma is identical to serum except in that the clotting factors are still present in the liquid portion of the blood, although halted.
- The lithium tubes are coated with lithium heparin chemical, designed to prevent clotting in exactly 1mL of whole blood. The chemical may be pooled on the bottom of the tube or coated on the sides.

• Directions for Use •

Step 1 Determine if your test requires whole blood or can be used with heparinized plasma. Verify the sample type in your test insert sheet. For best results, complete all processing within 30 minutes of collection

- **WHOLE BLOOD** Testing Applications: begin reading at **Step 2**.
- **PLASMA** Testing Applications: begin reading at **Step 5**.

Step 2: WHOLE BLOOD Applications Only •

- Place lithium heparin green cap tube on flat surface and remove cap.
- Draw 1mL of fresh blood using a needle syringe. Fill to the 1mL graduated line on the syringe.



• Directions for Use Continued •

Step 3: WHOLE BLOOD Applications Only •

• Within 1 minute after blood draw gently transfer 1mL fresh whole blood into green lithium tube. Refer to the image below demonstrating the proper fill volume of 1mL within the tube. Do not over or underfill. Use 1mL each time to ensure best results.



Step 4: WHOLE BLOOD Applications Only •

• Place the cap back on the tube, twist to lock, and mix by gentle inversion 5-10 times This ensures the chemical mixes with the blood uniformly and correctly. Do not shake.



Sample is ready. PROCEED to Use WHOLE BLOOD Sample •

• Directions for Use Continued •

Step 5: PLASMA Applications Only •

- Place lithium heparin green cap tube on flat surface and remove cap.
- Within 1 minute after blood draw gently transfer 1mL fresh whole blood into green lithium tube. Refer to the image below demonstrating the proper fill volume of 1mL within the tube. Do not over or underfill. Use 1mL each time to ensure best results.



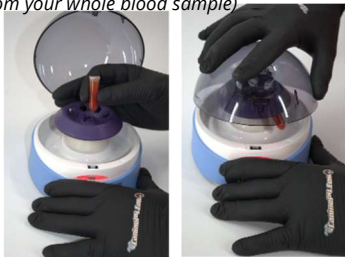
Step 6: PLASMA Applications Only •

- Place the cap back on the tube, twist to lock, and mix by gentle inversion 5-10 times This ensures the chemical mixes with the blood uniformly and correctly. Do not shake.



Step 7: PLASMA Applications Only •

- Place the sample into the centrifuge soon after. No clot time needed. Start the centrifuge and allow to **spin for 10 minutes**. *(To avoid damaging your centrifuge, balance the centrifuge by placing an equal volume water sample across from your whole blood sample)*



Step 8: PLASMA Applications Only •

- After 10 minutes of spinning, a clear separation on top of the cup should appear. Plasma will appear straw yellow or light pink in color, liquid in density, and transparent. Use this portion for testing.



Sample is ready. PROCEED to Use SERIUM/PLASMA Sample •

- **Step 9: OPTIONAL Re-Order by Visiting our Website •**

WWW.CANINEP4.COM

• **Warranty Disclaimer** •

For animals only. Not for use in humans. Keep out of reach of children. Intended for veterinary use only. Do not freeze. Store at room temperature. Keep out of direct or artificial sunlight. User (or Purchaser) is responsible to observe all applicable local, state, or federal law and bear all risks therefor. User shall dispose of all sharps in authorized waste containers, as identified by Users local trash removal services or health departments. Please consult local phone or internet directories for the correct information and disposal guidelines. Do not dispose sharps in standard trash.

MRDS, as Distributor, warrants this product for its intended veterinary product use and will replace any defect product purchased by User upon MRDS' receipt of timely written notice by User. This shall be Users exclusive remedy and User shall not be entitled to additional or further compensation or cost.

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