

Using the VetStat® Electrolyte and Blood Gas Analyzer Sample Preparation

Sample Collection and Preparation

The VetStat® Electrolyte and Blood Gas Analyzer is designed to analyze whole-blood, serum or plasma samples. To ensure maximum accuracy, it is important that you always prepare the sample properly when analyzing electrolyte and blood gas parameters.

Refer to your VetStat® Operator's Guide for complete instructions.

Whole Blood: Using a Vital Signs lithium-heparin syringe or Drummond lithium-heparin capillary tube

1. Use the appropriate sample collection device.
2. Fill the capillary tube with 200 µL of whole blood.
3. Roll the capillary tube between your fingers to mix the sample.
2. Aspirate a minimum of 0.2 cc of whole blood.
3. Roll the syringe between your fingers to mix the sample.

Whole Blood: Using an untreated syringe and a lithium-heparin collection tube

1. Use the appropriate sample collection device.
2. Use the appropriate tube.
3. Draw the sample gently. Immediately transfer it if necessary.*
4. Gently invert the sample for 30 seconds to mix it.
5. Remove the needle from a clean 1 mL syringe† and aspirate a minimum of 0.2 cc of heparinized whole blood.

Plasma

1. Use the appropriate sample collection device.
2. Use the appropriate tube.
3. Draw the sample gently. Transfer it, if necessary.*
4. Gently invert the sample for 30 seconds to mix it.
5. Centrifuge the sample for at least 120 seconds at a minimum of 12,000 RCF. Refer to your centrifuge operator's manual for centrifugation settings and times.
6. Remove the needle from a clean 1 mL syringe† and aspirate a minimum of 0.2 cc of plasma.

Serum

1. Use the appropriate sample collection device.
2. Use the appropriate tube.
3. Draw the sample gently. Transfer it, if necessary.*
4. Allow the sample to clot for a minimum of 20 minutes.
5. Centrifuge the sample for at least 120 seconds at a minimum of 12,000 RCF. Refer to your centrifuge operator's manual for centrifugation settings and times.
6. Remove the needle from a clean 1 mL syringe† and aspirate a minimum of 0.2 cc of serum.

Running a Test

1. From the Home screen, swipe the sample cassette bar code.
2. Wipe both sides of the cassette with a lint-free wipe. Insert the cassette into the sample measurement chamber (SMC), and close the cover.
3. Enter the patient information and then tap Finish.
NOTE: Patient information can be entered before, during or after the sample analysis.
4. Mix the patient sample and expel any air bubbles. Attach it to the sample cassette and tap OK.
5. Read the results.
6. Remove and discard the sample cassette. Close the SMC cover.

Quick Tips for Best Practices

- Use only lint-free wipes to wipe the sample cassette.
- Do not use EDTA or oxalate anticoagulants as these have significant effects on certain electrolyte and blood gas values.
- Avoid air bubbles in your samples as this will interfere with the sample analysis.
- Run the standard reference cassettes (level 1 or 3) daily. Running both levels is recommended.
- Run quality control monthly.

Tube colors may vary in regions outside of the U.S.

For assistance, call
IDEXX Technical Support at
1-800-248-2483.

*When using an evacuated tube, such as a Vacutainer® tube, allow the sample to draw naturally into the tube by vacuum.
†Certain syringes may not fit properly onto the VetStat cassettes. For best results, use a BD® 1-mL syringe.

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