

ProCyte Dx Hematology Analyzer

Analyzer Components



Sample Tube Adapters

Before you begin collecting a patient sample and processing it in the ProCyte Dx* analyzer, be sure you have the correct tube adapter loaded in the sample drawer of the analyzer. The ProCyte Dx analyzer has three sample tube adapters, so you can use various tube sizes, if necessary.



Standard Adapter

Use with standard 13 x 75 mm diameter tubes (such as VetCollect* tubes and Greiner Bio-One* Vacuette* 13 x 75 mm tubes with a Hemoguard closure).



Micro Adapter

Use with micro tubes in the following sizes: 10.25 x 50 mm, 10.25 x 64 mm, or 1.3 mL (such as Sarstedt 1.3 mL tubes).

Important: Remove tube cap before analysis.



QC Adapter

Use with e-CHECK* (XS) quality control blood samples.

Sample Volume Required

ProCyte Dx is compatible with many different collection tubes. Because the sample volume required varies by tube type (for example, VetCollect tubes require 1 mL of sample while Sarstedt 1.3 mL micro tubes require a minimum of 1.3 mL), it's important to follow the manufacturer's guidelines to ensure:

- The proper EDTA-to-sample ratio.
- The tube isn't overfilled, which can lead to clotting or clumping.
- The tube isn't underfilled, which can lead to morphological changes, such as red blood cell (RBC) shrinking (crenation).

Running a Patient Sample

1. Initiate the sample run on the IDEXX VetLab* Station (for more information, see the *IDEXX VetLab Station Operator's Guide*).
2. After you've confirmed the patient information and sample type on the Select Instruments screen, select the **ProCyte Dx** icon and then tap **Run**.
3. Read the on-screen instructions and tap **OK**.
4. Ensure the appropriate tube adapter is in place in the sample drawer.
5. Mix the sample with the anticoagulant by gently inverting the tube 10 times and then immediately place the tube in the sample drawer.
Important: If you are using the micro adapter, remove the cap before placing the tube in the adapter.
6. Press the **Start** button on the analyzer. The sample drawer automatically closes and the analyzer begins processing the sample.

Exiting Standby Mode

The analyzer enters Standby mode daily at a user-defined time (for information on setting this time, see the *IDEXX ProCyte Dx Hematology Analyzer Operator's Guide*) or when the ProCyte Dx analyzer is idle for 11 hours and 45 minutes.

To exit Standby mode, tap the **ProCyte Dx** icon on the IDEXX VetLab* Station Home screen (the icon will have a Busy/Standby status) and then tap **OK** to confirm that you want to exit Standby mode.

Notes:

- Exiting Standby mode will take approximately 8 minutes.
- To conserve reagent, do not exit Standby mode on a day that you do not plan to use the analyzer.
- The analyzer can remain in Standby mode for up to 1 week. A full system shutdown is required to prevent air bubbles and crystallization for extended periods of time with no use.

Running the Monthly Rinse Procedure

You will be prompted to perform the monthly rinse procedure 30 days after the last rinse was performed. This procedure takes approximately 25 minutes to complete.

1. Tap the **ProCyte Dx** icon on the Home screen.
2. Tap **ProCyte Dx Diagnostics** and then tap **Monthly Rinse**. The Monthly Rinse message box displays and the sample drawer opens on the ProCyte Dx* analyzer.
3. Read the message and verify that the time required for the procedure does not have an impact on your work flow.
4. If you do not have IDEXX Hydro-Clean, prepare a 5% bleach solution:
 - If you're using plain, filtered, 6% sodium hypochlorite Clorox* bleach, mix 2.5 mL bleach with 0.5 mL deionized/distilled water.
 - If you're using plain, filtered, 8.25% sodium hypochlorite Clorox bleach, mix 2.0 mL bleach with 1.0 mL deionized/distilled water.

Important: Only use filtered, unscented bleach without surfactants. Do not use gel, high-efficiency, outdoor, scented, or splashless bleach in the analyzer.

5. Dispense 2 mL of IDEXX Hydro-Clean (or the 5% bleach solution) into a 13 x 75 mm (untreated or EDTA-treated and rinsed) tube and insert the tube into the standard adapter in the sample drawer on the analyzer.

6. Tap **OK**.
7. Press the **Start** button on the analyzer to begin the Monthly Rinse procedure. The ProCyte Dx icon on the Home screen displays with a Busy status and a progress bar that shows the percentage complete for the Monthly Rinse procedure.
8. Perform quality control on your analyzer (see instructions below).

Adding a Quality Control Lot

1. Tap the **ProCyte Dx** icon on the Home screen.
2. Tap **Quality Control** and then tap **Add QC Lot**.
3. If you have a bar code scanner, scan the bar code on the e-CHECK* (XS) assay sheet. If you do not have a scanner, enter the bar code into the **Enter a Quality Control Bar Code** text box and then tap **Next**.
4. Repeat step 5 for the remaining five bar codes. After each bar code is entered, the bar codes display in the Quality Control Bar Codes group box. When a bar code is entered successfully, a green check mark displays to the left of the bar code. When a bar code is deemed invalid (because it does not exist or has expired), a red X displays to the left of the bar code and an error message may display.
5. Tap **Next**. The QC Lot now displays on the Quality Control screen.

Running Quality Control

1. Tap the **ProCyte Dx** icon on the Home screen.
2. Tap **Quality Control**.
3. Select the ProCyte Dx QC Lot and Level that you want to use and then tap **Run QC**.

Note: If there are no valid QC lots available, add a new QC Lot.
4. Allow the e-CHECK (XS) vial to come to room temperature (18°C–25°C [64°F–77°F]) for at least 15 minutes. Do not let the vial exceed room temperature.

Note: Do not warm the vial in your hand.
5. Verify the cap is secure and gently invert the e-CHECK (XS) vial to mix until the cell button in the bottom of the vial is completely suspended.

Note: Do not place e-CHECK (XS) on a mechanical mixer or rocker.
6. Tap **Next**. The ProCyte Dx sample drawer opens.
7. Ensure the QC adapter is in place in the sample drawer.

8. Immediately place the e-CHECK (XS) vial in the tube adapter.
9. Tap **OK**. The IDEXX VetLab Station Home screen appears.
10. Press the **Start** button on the analyzer.
11. If the e-CHECK (XS) vial has been at room temperature for less than 1 hour, return it to the refrigerator.

Note: e-CHECK (XS) is stable for 14 days once the cap is pierced, assuming it is not left at room temperature for more than 1 hour at a time.

Powering the Analyzer On/Off

It is recommended that you power off the analyzer, the ProCyte Dx computer (IPU), and the IDEXX VetLab Station once per week.

Tip: When powering off the ProCyte Dx analyzer and IPU, power them off at the end of the work day *before* the analyzer goes into Standby mode.

To power off the analyzer:

1. Tap the **ProCyte Dx** icon on the Home screen.
2. Tap **Turn Off ProCyte Dx**. The Turn Off ProCyte Dx dialog box displays.
3. Tap **OK**. The IPU powers down automatically.
4. When the analyzer alarm sounds, power off the analyzer using the switch located on the right side of the analyzer.
5. Tap **Shut Down** on the IDEXX VetLab Station Home screen to power it off.

To power on the analyzer:

1. Ensure the IDEXX VetLab Station computer is powered on and that the touch-screen monitor displays the Home screen. If necessary, tap **Home** in the upper-left corner of the screen to access the Home screen. The ProCyte Dx icon appears with an Offline (black) status.
2. Tap the **ProCyte Dx** icon and then tap **Turn on ProCyte Dx**.
3. When the status of the ProCyte Dx icon on the Home screen changes from Offline (black) to Busy (yellow), power on the ProCyte Dx analyzer using the switch located on the right side of the analyzer. The ProCyte Dx performs a variety of self-check procedures (if a self-check procedure fails, an alert message will display on the IDEXX VetLab Station Home screen). This process takes approximately 8 minutes.

4. If the self-check procedure is successful, the status of the ProCyte Dx icon on the Home screen changes to Ready (green) and the LED on the ProCyte Dx analyzer turns green (steady).

Changing the Reagent Kit/Stain Pack

An alert displays when the reagent kit/stain pack is empty or expired. When the reagent kit/stain pack is low or close to expiration, you can choose to change it immediately or be reminded to change it later.

To change the reagent kit:

1. Either tap **Change Reagent** in the alert message or tap the **ProCyte Dx** icon on the Home screen and then tap **Change Kit**.
2. Scan bar code #2 on the new reagent kit and tap **Continue**.
3. Open a new reagent kit by tearing away the easy-to-pull tabs, exposing the reagent shelf, and place it next to or below the analyzer.



4. Remove the caps from the 3 bottles, system diluent, and waste container (use the cap remover in the original accessory kit, if necessary) and set them aside. Verify the order of the bottles is correct by matching the color on the bottle labels with the colors on the shelf.



5. Place the quick-connect top onto the reagent kit, ensuring the probes are inserted into the 3 reagent bottles, the system diluent, and the waste container.



6. Tap **OK**.
7. Carefully remove each reagent bottle from the old reagent kit and dispose of the contents of each bottle according to applicable local disposal laws. Then place the caps from the bottles in the new reagent kit onto the bottles in the old reagent kit.

To change the stain pack:

1. Either tap **Change Stain** in the alert message or tap the **ProCyte Dx** icon on the Home screen and then tap **Change Stain**.
2. Scan bar code #2 on the new stain pack box and tap **Continue**.
3. Open the stain compartment and screw the caps onto a new stain pack, ensuring each probe is inserted into the correct pouch (**the caps are color-coded to match the labels on the stain pouches**).



4. Place the stain pack upright into the compartment, ensuring the cords are in front of the stain pack inside of the compartment and that the stain packs are not crumpled. Then close the cover.



5. Tap **OK** to complete the update.

IDEXX Technical Support

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