

QIAGEN Supplementary Protocol

Evaluating the temperature accuracy of the EZ1[®] Advanced XL

This protocol is designed to evaluate the temperature accuracy of the EZ1 Advanced XL. The protocol heats water to 60°C. Temperature accuracy should be within defined specifications of $\pm 3^{\circ}\text{C}$. The specification combines the EZ1 Advanced XL heating system specification of $\pm 2^{\circ}\text{C}$ and the thermometer accuracy of less than $\pm 1^{\circ}\text{C}$.

IMPORTANT: Please read the *EZ1 Advanced XL User Manual*, paying careful attention to the safety information, before beginning this procedure. The EZ1 Advanced XL is intended to be used only in combination with QIAGEN kits indicated for use with the EZ1 Advanced XL instrument for the applications described in the kit handbooks.

Equipment and reagents to be supplied by user

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, consult the appropriate material safety data sheets (MSDSs), available from the product supplier.

- EZ1 Advanced XL Card (any EZ1 Advanced XL Card can be used)
- Calibrated thermometer with an accuracy of at least $\pm 1^{\circ}\text{C}$ and a probe that fits into the testing hole of the heating block
- Deionized water
- Disposable gloves

Important points before starting

- The EZ1 Advanced XL should be positioned on a level workbench.
- Ambient temperature should be in the range of 15–30°C.



Procedure

1. Insert any EZ1 Advanced XL Card completely into the card slot of the EZ1 Advanced XL.

2. Switch on the EZ1 Advanced XL.

The power switch is located at the left rear of the instrument.

3. Press "3" to display the tests menu.
4. Press "2" to choose the temperature accuracy test. Use the arrow keys to set the temperature to 60°C.
5. Pipet 200 μ l water into the testing hole in the heating block. The position of the testing hole is shown in the picture below.



6. Press "START" to start the protocol.
7. Wait 20 min for the heating block to heat to 60°C.
8. Measure the temperature of the water in the testing hole in the heating block using an appropriate thermometer.

The measured temperature can be recorded in the test report on page 3.

9. Calculate the temperature accuracy. If the temperature is in the range of 57–63°C, then the accuracy is within the defined specifications of $\pm 3^\circ\text{C}$.
10. To run another temperature accuracy test, press "ESC" and follow the protocol from step 3. Otherwise close the EZ1 Advanced XL door, press "ESC", and switch off the EZ1 Advanced XL.
11. Clean the EZ1 Advanced XL.

Follow the maintenance instructions in the *EZ1 Advanced XL User Manual*.

Test report for temperature accuracy of the EZ1 Advanced XL

The results of the temperature accuracy test can be recorded here by the user for the operational qualification of the EZ1 Advanced XL.

Instrument and operator

Instrument: EZ1 Advanced XL
Serial number: _____
Location: _____
Test operator: _____
Test date: _____

Temperature accuracy test

Specification: Measured temperatures must be in the range of **57–63°C**.

Measured temperature (°C)	Passed	Failed

Signature: _____

Date: _____

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor. Material safety data sheets (MSDS) for any QIAGEN product can be downloaded from www.qiagen.com/Support/MSDS.aspx.

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