

Catalog #544 and #9544

EDVOTEK® Digital PCR Waterbath



Left bath heats
Ambient to 95°C

Features:

- Three 1.8 L stainless-steel chambers.
- Each chamber's dimensions are 6 x 5.5 x 4"
- Temp. range for left bath - Ambient to 95°C
- Temp. range for center & right baths - Ambient to 72°C
- Includes three chamber covers

Our unique 3-chambered PCR Bath is ideal for both PCR experiments and for general lab use. Three independent 1.8 L chambers are built into one casing, allowing multiple temperature settings. Temperature control for the left chamber is from ambient to 95°C (with cover). For the center and right chambers, the temperature range is ambient to 72 °C.

TO OPERATE

1. Fill the chamber up to the desired level with distilled water.
2. Plug in bath to the appropriate line voltage.
3. Turn power switch on.
4. Set temperature control for the desired temperature.
5. Allow some time for the bath to reach and equilibrate the desired temperature.
6. Be sure to cover the waterbath at temperatures above 37°C. This helps the waterbath reach the desired temperature quickly as well as prevents water evaporation.

CARE AND MAINTENANCE

To clean, wash out with warm water. Do not immerse the waterbath unit directly into water or use abrasive detergents. Let air dry.

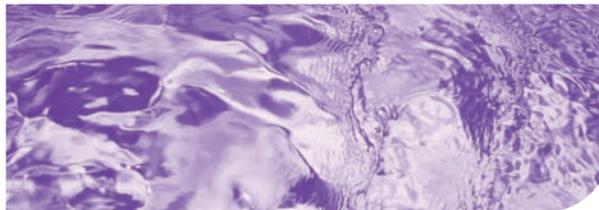
If the water level is too low while the unit is running, it will eventually show Er (error) on the display and the waterbath will shut down. If this happens, allow the unit to cool, add water to the proper level, and turn the power back on.

CALIBRATION

To adjust and correct the temperature offset for this unit, press and hold down both arrows at the same time. The display will initially show the Setpoint Temp. When the display goes blank, release both buttons. The display will now show the Temperature Offset. Use the Up/Down buttons to change the Temperature Offset, which will display the actual value between -1 and 20 degrees.

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DIRECTIONS FOR USE

Preparing DNA Samples for PCR:

Prepare your PCR samples as specified in your experiment instructions. If necessary, pulse-spin the PCR samples in a balanced microcentrifuge, or tap the tubes on a flat surface to get the sample to the bottom of the tube.

Once the reaction samples are prepared, use clean forceps to transfer one wax bead to the PCR tube (wax beads are provided in our PCR kits). The melted wax bead forms a barrier over the PCR sample to prevent its evaporation during heating.

Performing PCR Using the Digital PCR Waterbath:

Edvotek's Digital PCR Waterbath is a great alternative for PCR experiments if you do not have access to a thermal cycler. The samples to be amplified are placed in the three waterbaths, each maintained at a different temperature. The sequential placement of the samples into the three waterbaths constitutes one PCR cycle. An example of a PCR protocol is shown below:

94° C for 5 minutes

94° C for 1 minute
50° C for 1 minute
72° C for 1 minute } 35 times

72° C for 5 minutes

NOTE:

Temperatures must be accurately maintained throughout the experiment!

Check your experiment instructions for specific program requirements.

The PCR tube must be handled carefully when cycled between the three waterbaths.

- Gently place the PCR tube in a water-bath float, making sure that the sample volume is at the bottom of the tube and remains undisturbed throughout.
- For each cycle, use forceps to carefully lower the water-bath float (with tubes) into the water-baths.

Process the PCR sample for the total number of cycles specified in the experiment instructions. On the final cycle, the 72° C incubation can be extended to 5 minutes.

After all cycles are completed, the PCR sample is ready for electrophoresis.



Wear gloves
and safety goggles



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