

CRITICAL STEPS FOR BIORUPTOR® MAINTENANCE AND EFFICIENT SHEARING

Water quality

The water bath must be filled with purified water according to specification (see table) to the fill line. Change water at least every month and clean sonication tank with a soft tissue.

	Grade of Water	Compatibility with the Bioruptor
Ultrapure water	Type 1 or Type 1+	No
Deionized water	Type 2 or Type 2+	Yes
Distilled water	Type 3	Yes
Tap water	N/A	No

Water bath temperature

- Optimal temperature for sonication is 4°C. Sample temperature should not exceed 10°C.
- Maintain the temperature with Diagenode Water Cooler and Single Cycle Valve. The Water Cooler must be installed below the sonication unit to ensure a correct water flow.

Magnetic Ultrasound Emitter Maintenance

- The ultrasound waves are created from a series of magnets that are attached to the water tank. This system is very sensitive to the heat generated during a run.
- Do not exceed 30 min* of total sonication per run (total ON cycle). Set OFF cycle time higher or equal to ON cycle period. It is critical that the machine is allowed to cool at least 15 min between runs. Damage resulting from non compliance to manual instructions will void the warranty and shorten the lifespan of the machine.

* It can be increased to 45 min using the low power mode on the Bioruptor Plus.

- Ultrasound Emitters can be damaged by tilting or jarring the machine. Exercise care if moving water tank.

Validated tubes and sample volumes for the Bioruptor

- Please download our tube selection guidelines: www.diagenode.com/files/organigram/bioruptor-organigram-tubes.pdf

Tube holders

- 0.1ml, 0.2 ml, 0.5 ml, 0.65 ml and 1.5 ml tube holders
 - Place the tubes in the corresponding tube holder. Never leave empty spaces in the tube holder. Fill the empty spaces with tubes containing the same volume of distilled water. Screw the lid on the tube holder without over-tightening the lid.
 - Carefully place the tube holder on the holding plate.
 - During sonication, samples should remain at the bottom of the tube. If needed, briefly centrifuge samples during the sonication run.
- 15 ml and 50 ml tube holders
 - Bioruptor Pico is only compatible with 15 ml sonication accessories - without metallic bars - for Bioruptor. Sonication beads should be used to ensure the best possible sample processing.
 - 15 ml and 50 ml reflecting bars must be used with the corresponding holder on the Bioruptor Plus.

DON'T

- ❌ Turn ON the instrument without water
- ❌ Exceed 30 min. of total sonication (total ON cycle)*
- ❌ Tilt the sonication unit

DO

- ✅ Change water at least once every month
- ✅ Use deionized or distilled water
- ✅ QC your system with our DNA QC Kit

www.diagenode.com Please contact us for more information

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