

EchoSAFE FFPE Deparaffinization Solution

for deparaffinization of FFPE samples and subsequent isolation of DNA and RNA using Silica nucleic acid isolation kits

Product no. (volume)	030-001-010 (10 ml)	030-001-0025 (2x 50 ml)
Kit contents	FFPE Deparaffinization Solution	

Protocol for paraffin removal from FFPE samples and sample lysis

Materials and equipment needed

Use up to 4 slices of FFPE sample per purification.

- Microcentrifuge with rotor for 1.5 and 2 ml reaction tubes*
- For fastest performance: Thermomixer, capable of heating to 60°C and 90°C with agitation (full speed at 800–1500 rpm). Pre-heated to 60 °C
- Alternatively: Heating Block, pre-heated to 60 °C
- Vortexer
- One reaction tube (1.5 ml) per sample for the lysis step (preferably safe-lock)
- Pipets for 10 µl and up to 200 µl, corresponding pipet tips

Preparation before starting

- **Important:** The EchoSAFE Deparaffinization Solution has a freezing point of 18°C. Buffer with precipitate or in a solid aggregate state must be heated in a water bath to 25–35°C to melt, and mixed before use.
- Heat a thermomixer to 60°C
- Place the buffers, tubes and columns from your nucleic acid purification kit on the bench so they will be available for immediate use after the paraffin removal step.

Protocol

1. Cut FFPE slices from your FFPE sample with a microtome.
2. Place **2–4 FFPE slices** in the bottom of a 1.5 ml reaction tube. **Note:** Depending on the tissue and the age of the FFPE block, more slices might be needed to ensure adequate yield.
3. **Add 3–5 drops** of EchoSAFE Deparaffinization Solution to the FFPE slices.
4. **The FFPE slices dissolve immediately.** Add enough solution to completely cover the FFPE slices.
5. **Add the lysis buffer and subsequently, the protease from your DNA or RNA purification kit** to the sample. For the volumes of buffer and protease to be added, follow the instructions of the kit supplier.
6. **Vortex** the reaction mixture **for 10 seconds**.
7. **Place** the reaction mixture **in the thermomixer and incubate with agitation (1000 rpm) at 60°C for 15–30 minutes**. The tissue from FFPE slices is dissolved and the solution becomes clear. **Alternatively**, incubate on a heating block and pulse-vortex 3 times during lysis.
8. **Increase the temperature to 90°C** and further incubate **for 10 minutes**.
9. Remove the mixture from the thermomixer. And **centrifuge the reaction tube for 2–3 min at full speed**. The emulsion turns into 2 clearly separated phases.
10. **Transfer the lower aqueous phase containing the nucleic acids to a new 1.5 ml reaction tube. Note:** Discard the upper, orange phase, which contains the paraffin.
11. **Continue with the DNA or RNA nucleic acid purification according to the kit protocol**, e.g. using BioEcho EchoLUTION kits. Consider the following:
12. **If working with a DNA purification Kit:** Start with the transfer to the spin column (binding step). **If working with a RNA purification kit:** Add ethanol following the instructions of your kit supplier. Continue with the transfer to the spin column (binding step).
13. For the residual steps, follow the instructions of your DNA or RNA kit supplier.

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