# 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) | **030-001-100** (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.

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### 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. **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.**
    Consider the following:
    - **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).
    - For the residual steps, follow the instructions of your DNA or RNA kit supplier.

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BioEcho Life Sciences GmbH
Nattermannallee 1
50829 Köln (Cologne)/Germany
Phone: +49 (0) 221-99 88 97-0
E-Mail: contact@bioecho.de
www.bioecho.de