

ChargeSwitch® Forensic DNA Purification Kit

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Follow the steps below to purify genomic DNA from forensic samples for the purpose of short tandem repeat (STR) analysis. For more detailed protocols, including instructions for preparing different types of samples, refer to the kit manual.

1. Preparing the Sample

1. Set a water bath at 55°C.
2. Add 1 ml of Lysis Buffer (L13) and 10 µl of Proteinase K to a microcentrifuge tube and gently pipet up and down twice.
3. Add the sample to the tube (see the manual for guidelines on preparing different kinds of samples).
4. Incubate at 55°C for 30–60 minutes.
5. Remove the sample or transfer the supernatant to a fresh tube.

2. Binding the DNA

1. Add 200 µl of Purification Buffer (N5) to the tube.
2. Vortex the ChargeSwitch® Magnetic Beads to resuspend, then add 20 µl of beads to the sample. Gently pipet up and down 5 times to mix.
3. Incubate at room temperature for 1 minute, then place the tube in the MagnaRack™ for 1 minute.
4. Remove and discard the supernatant, then remove the tube from the magnet.

3. Washing the Beads

1. Add 500 µl of Wash Buffer (W12) to the tube, and gently pipet up and down twice.
2. Place the tube in the MagnaRack™ for 1 minute.
3. Remove and discard the supernatant, then remove the tube from the magnet.
4. Repeat wash steps 1–3 one more time, then proceed to eluting the DNA.

4. Eluting the DNA

1. Add 150 µl of Elution Buffer (E5) to the tube, and gently pipet up and down 10 times or until the beads are completely resuspended.
2. Incubate at room temperature for 1 minute.
3. Place the tube in the MagnaRack™ for 1 minute, or until the beads form a tight pellet.
4. Transfer the eluate containing the purified DNA to a new plate.