December 2023

Supplementary Protocol

Manual Extraction of DNA from Casework Samples using the Investigator® STAR Lyse&Prep Kit

This protocol is designed to enable efficient recovery of inhibitor-free DNA from various types of casework samples using the Investigator STAR Lyse&Prep Kit in a manual procedure. For general information, please refer to the kit handbook.

Equipment and Reagents to Be Supplied by User

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, consult the appropriate safety data sheets (SDSs), available from the product supplier.

- Investigator STAR Lyse&Prep Kit (cat. no. 931447)
- Investigator Lyse&Spin Basket Kit (cat. no. 19597 or 19598)
- 1.5 mL tubes
- Pipet tips

  Note: We recommend pipet tips with aerosol barriers to prevent cross-contamination.
- Centrifuge
- Thermal mixer or orbital incubator
- MagAttract Magnetic Rack (cat. no. 19606), or similar device

Important points before starting

- If using the Investigator STAR Lyse&Prep Kit for the first time, read the **Important Notes** section in the Instructions for Use.
- The kit has been developed for automated procedures. The manual procedure can be used as a backup in case automation systems are temporarily unavailable.

Things to do before starting

- Follow the protocol Lysis and filtration of forensic samples in the *Investigator Lyse&Spin Basket Kit Handbook* to obtain a cleared sample lysate.
- Prepare a mixture of 480 µL QSW2 and 320 µL QSL3 for each sample to be used as binding buffer.
- Prepare a heater shaker at 50°C.

Procedure

1. Add 800 µL of binding buffer to the sample in the 2 mL sample tube.
2. Add 100 µL of Bead Suspension G.
3. Incubate with shaking at 1000 rpm for 10 min at 50°C.
4. Collect the magnetic beads using a magnetic rack. Remove and discard the supernatant.
5. Add 500 µL of Wash Buffer QSW1.
6. Incubate with shaking at 1000 rpm for 30 sec at 50°C.
7. Collect the magnetic beads using a magnetic rack. Remove and discard the supernatant.
8. Add 500 µL of Wash Buffer QSW2.
9. Incubate with shaking at 1000 rpm for 30 sec at 50°C.

10. Collect the magnetic beads using a magnetic rack. Remove and discard the supernatant.
11. Repeat steps 8–10.
12. Carefully remove any remaining wash buffer from the magnetic bead pellet.
13. Incubate with open lids for 10 min at 50°C.
14. Add 50–100 µL Elution Buffer ATE.
15. Incubate with shaking at 1000 rpm for 10 min at 50°C.
16. Collect the magnetic beads using a magnetic rack. Remove the eluate and transfer into a fresh 1.5 mL tube.
17. Continue with sample quantification, or store eluates at –20°C.

Ordering Information

Product	Contents	Cat. no.
Investigator STAR Lyse&Prep Kit (400)	For 400 preps from casework and reference samples: Buffer ATL, Buffer QSL3, Buffer QSW1, Buffer QSW2, Bead Suspension G, Buffer ATE, Proteinase L, Carrier RNA, Q-Card	931447

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at **www.qiagen.com** or can be requested from QIAGEN Technical Services or your local distributor.

The Investigator STAR Lyse&Prep Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of the disease.

The Investigator STAR Lyse&Prep Kit meets ISO 18385 requirements.

Document Revision History

Date	Changes
12/2023	Initial release