

Rapid extraction of DNA from sperm using the QIASymphony[®] DNA Investigator[®] Kit

This protocol has been adapted from the pretreatment of sexual assault samples and is for the lysis and extraction of DNA from a sperm pellet after differential separation. The QIASymphony DNA Investigator protocol “Pretreatment of Sexual Assault Specimens” should be followed up to the point where a clean sperm pellet is isolated.

This protocol has not been thoroughly tested and optimized by QIAGEN.

IMPORTANT: Please read the “Safety Information” and “Important Notes” sections in the *QIASymphony DNA Investigator Handbook* before beginning this procedure. For safety information on the additional chemicals mentioned in this protocol, please consult the appropriate safety data sheets (SDSs), available from the product supplier.

Equipment and reagents to be supplied by user

- QIASymphony DNA Investigator Kit (cat. no. 931436)
- QIASymphony SP with the QIASymphony DNA Investigator Casework 200 protocol
- 1 M dithiothreitol (DTT)
- Buffer ATL (cat. no. 19076)
- Pipet tips (pipet tips with aerosol barriers to prevent cross-contamination are recommended)
- 10–1000 µl pipettors
- Microcentrifuge
- Thermomixer or orbital incubator
- Ultrasonicator bath (recommended)

Important points before starting

- If using the QIASymphony DNA Investigator Kit for the first time, read “Important Notes” in the *QIASymphony DNA Investigator Handbook*.
- The differential wash protocol uses Buffer ATL as a wash buffer. Additional Buffer ATL (cat. no. 19076) should be purchased separately.

Things to do before starting

- Heat a thermomixer or orbital incubator to 70°C for the proteinase K digest in step 4.

User-Developed Protocol

Procedure

1. Follow the protocol “Pretreatment of Sexual Assault Specimens” to the point where a clean sperm pellet is isolated.
2. Resuspend the sperm pellet in 160 µl Buffer ATL.
3. Add 20 µl proteinase K and 40 µl 1 M DTT. Vortex to mix.
4. Incubate at 70°C for 10 min in a thermomixer or orbital incubator at 850 rpm.
5. For maximum recovery, place samples in an Ultrasonicator for 10 min. Alternatively, vortex vigorously for 10 s.
6. Briefly centrifuge the tube to collect the liquid. DNA from sperm cells can now be purified from this tube.
Note: Ensure an appropriate QIASymphony sample tube is used. Refer to the most up-to-date labware list.
7. Continue with the protocol “Purification of DNA from Casework and Reference Samples”.

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. Safety data sheets (SDS) for any QIAGEN product can be downloaded from www.qiagen.com/safety.

The QIASymphony DNA Investigator Kit is intended for molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of a disease.

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