

quickDBS

Instructions For Use

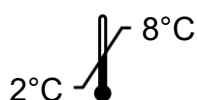
REF



2-050

100 extractions

RUO



Version: rev 1.0 / English



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REVISION HISTORY:

version	date	description
rev 1.0	2026-06	Initial version

I. INTENDED PURPOSE

The quickDBS kit is used for the preparation of extracts from dried blood spots (DBS). The resulting DNA can be used as a template for validated RealFast™ Assays.

For research use only.

II. BACKGROUND

DNA preparation from DBS is necessary to isolate nucleic acids from leukocytes and remove potential inhibitors. PCR requires a DNA template that can be reliably and efficiently amplified. Hemoglobin and other substances present in DBS act as strong PCR inhibitors by impairing polymerase activity.

III. METHODOLOGY

In the first steps, the erythrocytes are lysed by adding the lysis solution and proteinase K. Then, the DBS are repeatedly washed to eliminate hemoglobin and other PCR inhibitors. Finally, the sample is heated and the DNA is eluted. The DNA is ready for use in validated RealFast™ Assays. A measurement of the DNA concentration is not required.

IV. KIT COMPONENTS

	REF
	2-050
1. Lysis Solution	20 ml
2. Proteinase K	1 ml
3. Instructions For Use	1

Note: Store reagents at 2°C to 8°C when not in use!

Name of the component	Composition
Lysis Solution	hypotonic solution containing KHCO ₃ , NH ₄ Cl, EDTA
Proteinase K	recombinant proteinase K (20mg/ml) in an aqueous glycerol-based storage buffer
Instructions For Use	printed paper

V. MATERIALS REQUIRED BUT NOT SUPPLIED

In addition to standard molecular biology laboratory equipment, the following is needed:

- Microtubes (1.5 ml with screw cap) or 96-deepwell plates (min. 0.2 ml)
- Shaker and thermoblock or thermomixer with temperature setting of 95°C (± 2°C)
- Set of calibrated micropipettes or multichannel pipettes
- PCR grade water

VI. ASSAY PROCEDURE

Specimen: By using a lancet collect blood drops from a finger or heel prick onto an absorbent filter paper suitable for neonatal screening (Whatman 903 Protein Saver or PerkinElmer 226 filter papers). Allow the blood spot to air-dry for maximum 24 hours at room temperature. For long-term archiving up to one year, store DBS at 2°C to 8°C in a resealable bag with a desiccant pouch.

DNA extraction: Allow Lysis Solution to reach room temperature.

- Place **one 3 mm punch of a DBS** into a 1.5 ml microtube or 96-deepwell plate
- Add **100 µl Lysis Solution**
- Incubate for **5 min.** at **room temperature** shaking (approx. 450 rpm)
- Remove and discard the supernatant completely
- Add **100 µl Lysis Solution** and **10 µl Proteinase K Solution**
- Incubate for 15 min at room temperature shaking (approx. 450 rpm)
- Remove and discard the supernatant completely
- Add **50 µl PCR grade water**
- Remove and discard the supernatant completely
- Add **50 µl PCR grade water**
- Incubate for 2 min at room temperature
- Remove and discard the supernatant completely
- Add **30 µl PCR grade water**
- Incubate for **10 min.** at **95°C**.
- Briefly spin down the tube or plate.

The resulting supernatant contains DNA template suitable for immediate use in PCR. For further storage, the supernatant should be transferred into a fresh tube and kept refrigerated (2°C to 8°C; up to one week) or frozen at -30°C to -15°C (for long term).

VII. DATA ANALYSIS AND INTERPRETATION OF THE RESULTS

See the corresponding Instructions for Use of the RealFast™ Assay.

VIII. PERFORMANCE EVALUATION

The quickDBS kit is validated for use with the SMN1 RealFast™ Assay (7-700), the HbS-HbC RealFast™ Assay (7-280) and the SCID-XLA RealFast™ Assay (7-710). Performance evaluation data can be found in the respective RealFast™ Assay documentation. In the tests conducted as part of the performance evaluation of the RealFast™ Assays, the results were concordant with the expected genotype in pretyped DNA samples.

IX. INTERFERING SUBSTANCES

See the corresponding Instructions for Use of the RealFast™ Assay.

X. LIMITATIONS OF THE ASSAY

The quickDBS kit is validated for use with the SMN1 RealFast™ Assay (7-700), the HbS-HbC RealFast™ Assay (7-280) and the SCID-XLA RealFast™ Assay (7-710).

XI. QUALITY CONSIDERATIONS

- A thorough understanding of the procedure outlined here, as well as standard laboratory techniques and appropriate equipment are required to obtain reliable results.
- Do not use the kit beyond the expiry date.
- After first opening of the primary container, reagents are stable until the expiry date printed on the outer label of the kit when stored properly at 2°C to 8°C.
- Use sterile disposable pipette tips with filters to avoid microbial contamination and cross-contamination of reagents and samples. Do not interchange bottle caps.
- Single use only.

XII. SAFETY

- Do not drink, eat, smoke, or apply cosmetics in designated work areas. Wear laboratory coats and disposable gloves when handling specimens and kit reagents. Wash hands thoroughly afterwards.
- Handle specimens as if capable of transmitting infectious agents. Thoroughly clean and disinfect all materials and surfaces that have been in contact with specimens. Discard all waste associated with clinical specimens in a biohazard waste container.
- Adhere to all local and federal safety and environmental regulations which may apply.
- The ingredients of the components are not dangerous or their concentrations do not exceed the limits specified in Regulation 1272/2008/EC.

XIII. TECHNICAL SUPPORT

Technical support may be obtained by:

- contacting the local ViennaLab Diagnostics distributor (www.viennalab.com/distribution)
- contacting techhelp@viennalab.com

NOTES

XIV. SYMBOLS



Catalog number



Batch code



Sufficient for <n> tests



Temperature limits for storage



Use by



Caution



Manufacturer



Date of manufacture



Consult Instructions For Use

XV. RELATED PRODUCTS

REF		
2-014	GENXTRACT™ Blood DNA Extraction System	100 Extractions
2-020	Spin Micro DNA Extraction Kit	20 Extractions
2-030	D2PCR™ Buffer	100 Extractions

Distributor:



Manufacturer:



ViennaLab®

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