

High-Q™ Spin-Column Buccal Swab Genomic DNA Purification Kit

Ordering info

TBK0140, 3 reactions (sample)

TBK0141, 50 reactions

TBK0142, 200 reactions

Description

High-Q™-Spin-Column Buccal Swab Genomic DNA Purification Kit provides a non-invasive method for obtaining genomic DNA. It is a silica-membrane-based DNA purification kit to obtain total DNA from mucosal epithelial cells with high quality and purity. Suitable for DNA extraction from buccal, nasal and vaginal swabs.

Features

- High yield and purity, 0.5 - 5 µg, A260/A280 ~1.8-2.0, A260/A230 ~ 2.0-2.2.
- No phenol extraction.
- Fast and easy protocol.
- Versatile, freshly collected samples or preserved samples can be used.

Applications

DNA obtained is suitable for downstream molecular biology applications such as PCR, enzymatic digestion for cloning or Southern, genotyping, etc.

Quality Control

DNA isolation from buccal swab sample is checked by: integrity (agarose gel electrophoresis), quantity and quality.

Kit Components

Components	TBK0141	TBK0142
High-Q™ Spin Column with Collection Tubes	50	200
BS Buffer	40 mL	150 mL
Proteinase K	30 mg ^a	3 x 30 mg ^a
Proteinase K Resuspension Buffer	1.5 mL	3 x 1.5 mL
WB1 Buffer	12 mL ^b	48 mL ^c
WB2 Buffer	8 mL ^d	25 mL ^e
Elution Buffer	15 mL	25 mL

Order Info Kit Components: High-Q™ Spin Column with Collection Tubes (TBM0010) | BS Buffer (TBB0505) | Proteinase K (TBZ0303) | Proteinase K Resuspension Buffer (TBB0546) | WB1 Buffer (TBB0511) | WB2 Buffer (TBB0512) | Elution Buffer (TBB0510).

Before its use:

^a To prepare a 20 mg/mL solution, spin Proteinase K tube and add 1.5 mL Proteinase K Resuspension Buffer.

^b Add 18 mL absolute ethanol and mix well.

^c Add 72 mL absolute ethanol and mix well.

^d Add 32 mL absolute ethanol and mix well.

^e Add 100 mL absolute ethanol and mix well.

Storage

Store the kit at room temperature (15-25°C).

Store Proteinase K at -20°C.

Required Material (not supplied)

- Buccal Swab.
- RNase A (CAS 9001-99-4).
- Ethanol (CAS 64-17-5).

PROTOCOL

I. SAMPLES

Freshly Collected Buccal Swab: Not eat or drink 1 hour before sample collection. Wash the buccal cavity with water or saline solution.

1. Introduce a buccal swab in the mouth and rub vigorously the inside of the cheek between 20-30 times.
2. Place the swab in a tube with **700 μL of BS Buffer**. Rotate and press the swab firmly against the tube wall to maximize cell release into the solution.

Freshly Collected Nasal/ Vaginal Swab: Introduce the swab in the nasal or vaginal cavity and proceed like for buccal swab sample collection.

Samples Preserved in Preservation Solution: Samples preserved in our Buccal Swab Sample Collection & Preservation Kit (TBK0307-0309) have been tested with this kit with excellent results.

II. DNA PURIFICATION

1. Transfer **400 μL of the sample** to a clean microcentrifuge tube.
2. *Optional, if RNA-free preparation is required: Add 20 μL RNase A (10 mg/mL).*
3. Add **20 μL Proteinase K**. Mix thoroughly by pipetting until a homogenous solution is observed. Incubate at **55°C for 20 minutes**.
4. Add **400 μL Absolute Ethanol** and mix well.
5. Transfer the mix to High-Q™ Spin Column placed into a Collection Tube.
6. Centrifuge at **13,000 g for 1 minute** and discard the flow-through. Repeat steps 5 and 6 with the remaining mixture.
7. Place the High-Q™ Spin Column into the Collection Tube, add **500 μL WB1 Buffer**.
Check absolute ethanol has been added to WB1 Buffer (✓).
8. Centrifuge at **13,000 g for 1 minute** and discard the flow-through.
9. Place the High-Q™ Spin Column into the Collection Tube, add **700 μL WB2 Buffer**.
Check absolute ethanol has been added to WB2 Buffer (✓).
10. Centrifuge at **13,000 g for 1 minute** and discard the flow-through.
11. To dry High-Q™ Spin Column, place the Spin Column into the Collection Tube and centrifuge again at **13,000 g for 2 minutes**.
12. Place the Spin Column into a clean 1.5 mL Tube.
13. Add **50-100 μL prewarmed Elution Buffer or Water, Molecular Biology Grade** (pre-warmed at 70°C) and incubate **2 minutes at room temperature**.
14. Centrifuge at **13,000 g for 1 minute**.
15. Check DNA quality on agarose electrophoresis gel and quantity by spectrophotometry.
16. Store at **-20°C**.



