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 noninvasive 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.

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
PBS 1x pH7.4	1 pouch (1 L)	1 pouch (1 L)
BS Buffer	15 mL	45 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) | PBS 1x pH7.4 (TBB0600) | 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.

Material required (not supplied)

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

PROTOCOL

I. SAMPLE COLLECTION

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

1. In a 2 mL tube, add **1 mL Cold PBS 1x, pH 7.4.**
2. Introduce a buccal swab in the mouth and rub the inside of the cheek between 10-20 times.
3. Place the swab in the tube prepared at step 1. Rotate 5-6 times.
4. Centrifuge at 13,000 g for 2 minutes. Remove the supernatant.
5. Resuspend the cell pellet in **180 µL PBS 1x, pH 7.4** by vortex for 10-15 seconds.

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

II. DNA PURIFICATION

1. *Optional, if RNA-free preparation is required: Add* ***20 µL RNase A (10 mg/mL)****.*
2. Add **20 µL Proteinase K** and **200 µL BS Buffer**. Mix by pipetting until homogenous solution is observed.
3. Incubate at 55°C for 20 minutes.
4. Add **200 µL Absolute Ethanol** and mix vigorously by vortex for 20 seconds.
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.
7. Place the 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 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.