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DATA SHEET

Version: 03
Revision date: 21/04/2023

1. Identification

Product name **HigherPurity™ Buccal Swab Genomic DNA Extraction Kit**

Cat. No **AN0036 (50 reactions)**
Cat. No **AN0036-XL (250 reactions)**

2. Description

HigherPurity™ Buccal Swab Genomic DNA Extraction Kit provides an efficient method for DNA extraction from buccal swab. The procedure includes sample collection, lysis, protein removing, DNA precipitation, washing and hydration.

3. Kit Components

Item	Quantity	
	AN0036 (50 rxn)	AN0036-XL (250 rxn)
Resuspension Solution	60	150
S2 Buffer	12 ml	60 ml
S3 Buffer	10 ml	50 ml
S4 Buffer**	250 uL	1,25 mL
Proteinase K*	10 mg	50 mg
EB Buffer	10 ml	50 ml

*Dissolve Proteinase K in water to obtain a 20 mg/mL stock solution. The Proteinase K solution can be stored for several days at 2–8 ˚C.
For longer-term storage, the unused portion of the solution may be stored in aliquots at –20 ˚C until needed.
**Store at 4ºC

4. Kit Storage

The kit is shipped at ambient temperature. Upon arrival, store Proteinase K and S4 buffer at 4ºC.
All other kit components can be stored at room temperature.

5. Features

- ✓ Convenient: ideal for routine work.
- ✓ Highly Efficient: 0.5-3 µg of genomic DNA from Buccal Swab.
- ✓ Safe: avoids phenol/chloroform extraction.
- ✓ Pure genomic DNA: ready-to-use in all Molecular Biology applications.
- ✓ Versatile: proven performance to isolate DNA from buccal swab of human, cats, dogs, sheeps, etc.

6. Applications

All molecular biology applications, such as: PCR, RT-PCR, Southern blotting, RFLP, etc.

7. Further information

Product Use Limitations This product is developed, designed, and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

Safety Information When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate material safety data sheets (MSDS). These are available online in convenient and compact PDF format at www.canvaxbio.com where you can find, view, and print the MSDS for each CANVAX kit.

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Recomended Protocol

A. Sample collection

1. To collect a sample, scrape with a sterile cotton swab firmly against the inside of each cheek. Place the cotton swab into a tube containing **600 µl of Resuspension Solution** and rotate the swab a minimum of 5 times. Press the swab against the side of the tube and rotate while removing it from the tube to ensure most of the liquid remains in the tube. Do not touch the cotton swab with your fingers.
2. Repeat step 1 with a new sterile cotton swab, but rubbing underneath lower or upper lip, and use the same tube with Resuspension Solution.
3. Centrifuge at 13000 rpm (full speed) for 5 minutes and remove the supernatant using a pipette (leaving between 10-20 µl of residual liquid and mixing by pipetting).

B. Genomic DNA Purification

4. Add **200 µL buffer S2** and **3 µL proteinase K** and mixing by pipetting.
5. Incubate in a water bath at 55 ˚C for 1 hour. Allow the sample to cool to room temperature for 5 minutes.
6. Add **70 µL buffer S3** and mixing with vortex vigorously for 1 minute.
7. Centrifuge at 13000 rpm (full speed) for 1 minute.
   If the pellet is not tight or the solution is still cloudy, the sample can be cooled on ice for minutes and centrifugation repeated.
8. Transfer the supernatant to a new microcentrifuge tube containing 190 µL isopropanol and **5 µL Buffer S4**. Mix by gentle inversion 25-50 times.
9. Centrifuge at 13000 rpm (full speed) for 1 minute and remove the supernatant using a pipette (A white pellet will be observed).
10. Wash the pellet with 200 µL 70% ethanol and centrifuged at 13000 rpm (full speed) for 1 minute.
11. Remove the supernatant using a pipette and dry the pellet with the tube inverted on absorbent paper for 5 minutes.
12. Resuspended the pellet in **100 µL of Buffer EB** and vortex at medium speed to mix.
13. [Optional] To help the solubilization, you can Incubate at 65°C for 1 hour or incubate O/N at RT.
14. The isolated DNA is ready for use in downstream applications or for either short-term storage at +4°C or long-term storage at -20°C.