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DATA SHEET

Version: 03
Revision date: 04/05/2023

1. Identification

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

Cat. No **AN0037 (50 reactions)**
Cat. No **AN0037-XL (250 reactions)**

2. Description

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

3. Kit Components

Item	Quantity	
	AN0037 (50 rxn)	AN0037-XL (250 rxn)
Resuspension Solution	60 mL	260 mL
S2 Buffer	100 ml	500 ml
S3 Buffer	40 ml	200 ml
S4 Buffer	2.5 mL	5 mL
Saliva Collection Tubes (2mL)	50	250
Proteinase K(lyophilized)	30 mg	5 x 30 mg
Proteinase K Buffer	1.3 mL	5 x 1.3 ml
RNAse A (lyophilized)	10 mg	5 x 10 mg
RNAse A Buffer	1 mL	5 x 1ml
EB Buffer	50 ml	250 ml

4. Kit Storage

Proteinase K and RNase A are shipped lyophilized. The RNase A and Proteinase K lyophilizates should be stored at +4˚C.
Before using for the first time, reconstitute the RNase A lyophilizate in 1 ml of RNase A Buffer. After reconstitution, the RNase A should be kept at +4˚C for short-term storage or in aliquots at -20˚C. Reconstitute the Proteinase K lyophilizate in 1.3 ml of Proteinase K Buffer. Proteinase K solution may be stored in aliquots at –20 ˚C until needed. All the other components of the kit should be stored at room temperature (15-25˚C).

5. Features

- ✓ Convenient: reduces sample collection distress and blood sample handling.
- ✓ Efficient*: 10-20 µg of genomic DNA from saliva DNA.
  **Average DNA yield will vary depending on the donor.*
- ✓ Safe: no phenol-chloroform extraction.
- ✓ **Ready to use** genomic DNA, in all molecular biology.

Quality Certifications:
BS Buccal Saliva Genomic DNA Extraction kit is analysed by a saliva DNA genomic extraction.

- ✓ DNA purified is analysed by:
- ✓ Ratio 260/280.
- ✓ Agarose gel electrophoresis.

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6. Applications

Purification of genomic DNA from saliva of different origins (human or animal)..

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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Detailed Protocol

Δ Fresh sample Saliva (≈1 mL) and saliva sample stabilized in Preservation Solution (1.2 mL)

◊ Saliva sample stabilized in Preservation Solution (4.5mL).

1. Open the saliva collection tube, assemble the funnel (not provided) and spit at least 2 times (≈1 mL). *Try not to drag nasopharyngeal secretions. Avoid touching the mouth of the tube with the hands.*

2. Add 1 mL of **Resuspension Solution (RS)** to 1 mL of saliva sample and Mix well.

In the saliva sample stabilized in Preservation Solution, a white sediment containing the buccal cells will be appreciated. Homogenize by shaking the tube containing the collected saliva (it is important to observe a homogeneous solution) and pipette 1.2 ml of the mixture to a new vial. The remainder of the saliva sample can be stored at room temperature until ready for further use.

For increase amount of DNA, you can use all contents of the vial containing the collected saliva (4.5 ml). We recommend processing in 15 or 50 ml tubes.

3. Centrifuge at **Δ13.000xg/◊4.000xg** for 2 minutes. and remove the supernatant using a pipette and avoiding damaging the cell visible pellet. Leaving between 50-100 µL of residual liquid and vortex the tube vigorously until the cells are resuspended (10-15 sec). *This process will help to optimize the cell lysis in the following step.*

Genomic DNA Purification

4. Add **Δ600 µL/◊2mL Buffer S2** + **Δ5 µL/ ◊15µL Proteinase K** + **Δ5 µL/ ◊15µL RNase A** and mixing by pipetting.

5. Incubate in a water bath at 37 ˚C for 0.5-1 hour. Vortex the sample twice during the incubation.

6. Cool down the sample on ice for 10 minutes.

7. Add **Δ200 µL/ ◊750µL Buffer S3** and mixing with vortex vigorously for 20-30 seconds.

8. Centrifuge at **Δ13.000xg/◊8.000xg** for 5 minutes.

If the pellet is not tight or the solution is still cloudy, the sample can be cooled on ice for 5 minutes more and centrifugation repeated.

9. Transfer the supernatant to a new **Δmicrocentrifuge tube/◊15 or ◊50 mL tube** containing **Δ600 µL/◊ 2mL isopropanol** and **Δ15 µL/◊50 µL S4 solution**. Mix by gentle inversion 25-50 times.

10. Centrifuge at **Δ13.000xg/◊8.000xg** for 2 minutes and remove the supernatant. *The DNA will be visible as a small white pellet.*

11. Wash with **Δ600 µL/◊2mL 70% ethanol** and centrifuge at **Δ13.000 rpm/◊8.000xg** for 2 minutes.

12. Remove the supernatant and dry the pellet with the tube inverted on absorbent paper for 5-10 minutes.

13. Resuspended in **Δ50-100 µL/ ◊600-1000 µL** of Buffer EB or H2O. You can incubate at 50°C for 1 hour to help DNA solubilisation (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.

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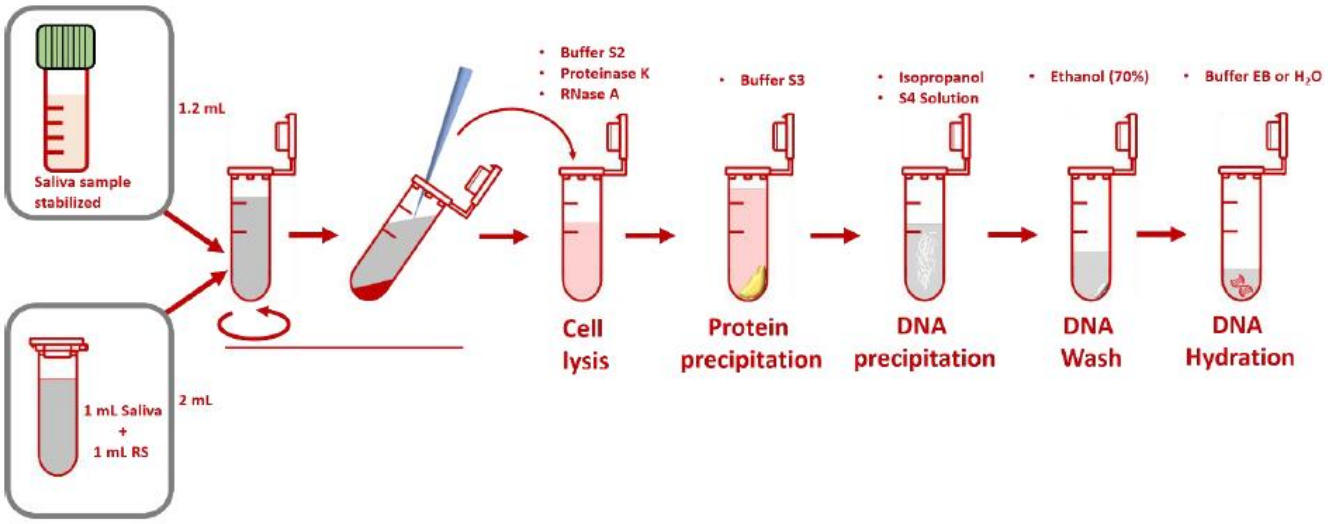
Procedure

Δ Fresh sample Saliva (≈1 mL) and saliva sample stabilized in Preservation Solution (1.2 mL)



◊ Saliva sample stabilized in Preservation Solution (4.5mL).