



Introduction

The **DNrich** Saliva Kit provides all of the reagents necessary to extract DNA from saliva. DNA purified with this kit is suitable for a variety of applications, including amplification and digestion with restriction endonucleases.

DNrich Saliva Kit components*

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ST Solution	50 ml	
TD Buffer	20 ml	
Activator Reagent**	2 ml	
VI Buffer	15 ml	
PE Buffer	25 ml	
Wash Buffer (conc.) **	15 ml	
Elution Buffer	3 ml	
Manual	1	

^{* 1.5} ml microcentrifuge tube, molecular biology grade water, and absolute ethanol are needed but are not included.

Chemical Hazard

Always wear gloves and practice standard safety precautions while using the kit. Do NOT disinfect extraction waste in solutions containing **bleach** or any other form of acid. To clean any items contaminated with the reagent, simply soak in detergent and water to remove all traces of contamination before cleaning with bleach or acidic solutions.

Reminder

Pre-set heather block at 65°C.

Prepare Activator Reagent immediately prior to use. Prepared Activator Reagent must be kept at -20°C.

Activator Reagent Preparation

Add 1.5 ml of molecular biology grade water to Activator Reagent, and vortex it well.

Note: Mark the check box on the bottle and write the date.

Note: For the best results, the prepared Activator Reagent should be used immediately. Prepared Activator Reagent can be stored for up to 3 months or 6 months at 4°C and -20°C, respectively.

Wash Buffer Preparation

Add **35 ml** molecular biology grade **Absolute Ethanol** to **Wash Buffer** bottle before first use and mark the check box on it.

^{**} Please refer to Activator Reagent Preparation and Wash Buffer Preparation before using this kit.

PROTOCOL

Step a: Sample Preparation

- a1 Add **2 ml** of saliva sample to a sterile 2 ml microcentrifuge tube then Centrifuge at **10000 g** for **5** minutes, **Decant** the supernatant into waste.
- a2 Add 1000 μl ST Solution to the sample tube and vortex it well.
- a3 **Transfer 300 μl** of **sample** to a new 1.5 ml microcentrifuge tube.

Step b: Digestion

- b1 Add $400 \mu l$ of **TD Buffer** and $40 \mu l$ of **prepared activator reagent** to the sample tube and vortex vigorously.
- b2 **Incubate** at **65**°C for **30** minutes. During incubation time, vortex the sample tube every 10 minutes.
- b3 Incubate at 85°C for 10 minutes.

Step c: Lysis

- c1 Add 300 µl of VI Buffer to the sample tube and mix by vortex.
- c2 Keep at **room temperature** for 10 minutes and **invert** regularly.
- c3 Centrifuge at **11500** g for **5** minutes.
- c4 Carefully transfer about **500μl of supernatant** to a new 1.5 microcentrifuge tube and do not disturb the phases.

Step d: DNA Precipitation

- d1 Add 500 µl of PE Buffer to the sample tube and mix by invert for 15 times.
- d2 Keep at **room temperature** for **10** minutes.

Optional (for stale samples): Incubate the samples at -20°C for 30 to 60 minutes.

- d3 Centrifuge at 12000 g for 10 minutes.
- d4 **Decant** the supernatant into waste.

Note: While decanting, be careful not to lose the DNA pellet.

Step e: Wash

Note: Prepare Wash Buffer before first use

- e1 Add **500 μl** of **prepared Wash Buffer** to the sample tube, invert for 10 times and then centrifuge at **12000 g** for **5** minutes.
- e2 **Decant** the supernatant into waste.
- e3 Repeat step e1.
- e4 **Decant** the supernatant into waste, and let stand until dry.

Step f: DNA Elution

- f1 Add **50 μl of Elution Buffer** to the sample tube.
- f2 Resuspend the DNA for **5 minutes** at **room temperature** or **at 55**°C, and then centrifuge at **8000 g** for **1 minute**.

Note: Store DNA at -20°C.

