

# Buccal Swab DNA Extraction Kit

## (Spin-column)

Cat. BP7001

50 preps

### Kit Content, Storage and Stability

Component	Storage	50 preps
Buffer VB	RT	15 ml
Binding Buffer CB	RT	15 ml
Inhibitor Removing Buffer IR	RT	27 ml
Washing Buffer WB	RT	15 ml
		Add the ration ethanol before first use
Elution Buffer EB	RT	15 ml
Protease K (20mg/ml)	-20°C	20mg (Dry powder)
Spin-column AC	RT	50
Collection Tube (2ml)	RT	50

All reagents, when stored properly, are stable for 12 months.

### Notes:

1. Dilute 15 ml Buffer WB with 60 ml absolute ethanol before use and mix thoroughly. Please mark it to avoid repeated adding.
2. Buffer CB and IR may form precipitation due to low storage temperatures. If necessary, dissolve the precipitation by 37°C water-bath and then cool to room temperature before use.
3. Protease K is provided in freeze-dried powder for activity and transportation. Once receiving it, add 1ml sterile water after transient centrifugation. Then stored in per dose under -20°C.
4. Please ensure the bottles tightly capped when not in use, preventing reagents evaporating, oxidation and pH changing.

### II. Principle

The kit applies the unique binding buffer/ Protease K to rapidly lyse cells and inactivate cellular nucleases, then DNA selectively adsorbs to silicified membrane in high salt solution. Cellular metabolite and proteins etc. are removed by serial of elution- centrifugation steps. Finally purified DNA from silica membrane is eluted by low salt elution buffer.

### III. Features

1. No need of harmful phenol and ethanol precipitation.
2. Simple and rapid. One preparation can be completed in 30 min.
3. This kit is suitable for DNA extraction from fresh or frozen buccal swab samples.
4. Multi-elution ensures high-purified DNA. The DNA yield achieves 0.5-3.5µg from each sample.

### IV. Notes

Please read this section before your experiment.

1. All the centrifugation steps can be performed at room temperature.
2. Set water bath to 70°C before use.

3. To avoid contamination from food, do not eat and drink before 30min before take samples.

## V. Procedure

### **Add 60 ml absolute ethanol to 15 ml Buffer WB before first use!**

1. Take buccal swab from cotton swab (cut the button ), put it in one 2ml centrifuge tube, and add 400µl Buffer VB.
2. Add 20µl protease K (20mg/ml), vortex for 10 sec, incubate at 72°C for 10 min, and mix each 2 min during incubation.
3. Add 400µl Binding Buffer CB and then overturn to mix thoroughly. The mixture will become clear.
4. Add 200µl 100% ethanol and mix thoroughly.
5. Transfer all the solution into a Spin-column AC (Insert a spin-column AC into a collection tube), centrifuge at 12,000 rpm for 30 sec, discard filtrate.
6. Add 500µl Buffer IR and centrifuge at 12,000rpm for 30 sec. Discard filtrate.
7. Add 700µl Buffer WB (please check absolute ethanol is added!) and centrifuge at 12,000rpm for 30 sec. Discard filtrate.
8. Add 500µl Buffer WB and centrifuge at 12,000rpm for 30 sec. Discard filtrate.
9. Put the Spin-column AC back to the collection tube and centrifuge at 12,000rpm for 2 min. Remove rinsing buffer as possible, as left ethanol will affect the next reaction.
10. Transfer the Spin-column AC to a new collection tube and add 100 µl preheated (65°C -70°C) Buffer EB. Place it at room temperature for 2-5min. Centrifuge at 12,000rpm for 1min. Add the flow-through back onto the Spin-column AC and place it at room temperature for 2 min. Centrifuge at 12,000rpm for 1 min.  
  
*The volume of elution buffer could be adjusted according to needs. Appropriately reduce elution volume can increase concentration, but the minimum volume is 20 µl; too low elution volume will decrease the elution efficiency and the final DNA yield.*
11. Store DNA at 2-8°C (-20°C for long term storage)