# Swab DNA Extraction Kit

**Cat:** D3300

**Size:** 50T/100T

**Storage:** The kit can be transported at room temperature and stored at room temperature(10-30℃) for 12 months. The digestive solution should be stored at -20℃ to avoid repeated freezing and thawing.

**Kit Components:**

| Kit Components | 50T | 100T |
|---|---|---|
| Adsorption column and collection tube | 50 each | 100 each |
| Lysate | 12mL | 24mL |
| Precipitated Liquid | 4.5mL | 9mL |
| Washing Buffer | 9mL | 18mL |
| Elution Buffer | 3mL | 6mL |
| Digestive Solution | 1.1mL | 2.2mL |
| Specification | 1 | 1 |

**Introduction:**

Swab DNA extraction kit is specially used to extract all kinds of oral swabs, urogenital tract swabs and sputum samples in the DNA kit. This kit uses the latest high-quality imported ionic membrane. The lysate and eluent have been optimized for many times to isolate DNA efficiently. Compared with similar kits of other brands, the extracted DNA has a larger yield and higher purity, and the impurity pollution such as protein, pigment and lipid is removed to the maximum extent. It can be directly applied to PCR, fluorescent quantitative PCR and various enzyme digestion tests.

**Product Features:**

1. The operation is simple and fast, and ideal DNA can be obtained in 20min.
2. Extract DNA with high purity, no inhibitors, 1.7-1.9 A260/A280.
3. High yield, more DNA extracted for the same sample size.
4. It can be used to extract DNA from various oral swabs, urogenital tract swabs and sputum samples, and the extracted DNA can be used for nucleic acid detection.
5. It does not contain toxic solvents such as phenol and chloroform, and is safe and non-toxic.

**Protocols(only for reference):**

1. Please prepare yourself: anhydrous ethanol, normal saline, 1.5mL centrifuge tube.
2. Take out the precipitated liquid and washing buffer, as follows:

(1) Precipitated liquid: Add 25.5mL anhydrous ethanol into 4.5mL precipitated liquid, mix well; Add 51mL anhydrous ethanol into 9mL precipitated liquid and mix well.

(2) Washing buffer: Add 21mL anhydrous ethanol into 9mL washing buffer and mix well; Add

42mL anhydrous ethanol into 18mL washing buffer and mix well.

(3) The prepared precipitated liquid and washing liquid, if precipitated, can be dissolved at 37℃, shake well before use.

3. Sample handling:

a) Swab: Add 800μL normal saline into 1.5mL centrifuge tube, place the samples collected from the swab in normal saline, wash for 20s to completely shed the cells, stick to the wall of the centrifuge tube to squeeze dry the liquid on the swab, centrifuge at 12000rpm for 5min, discard 700μL supernatant, remaining 100μL supernatant, Fully oscillate and mix for 15s.

b) Sputum: Add 4 times the volume of 1M NaOH into the collected sputum, place at room temperature for 30min, shake and mix once every 10min(if the sputum is still viscous, the liquefaction time can be appropriately extended), centrifugation at 12000rpm for 5min, discard the supernatant, remaining 100μL supernatant, fully shake and mix for 15s.

4. Add 200μL lysate and 20μL digestive solution, shake and mix well, and bathe in water at 56℃ for 10min.
5. Add 500μL precipitated liquid and mix it upside down gently. If there is translucent suspended matter, it will not affect DNA extraction and follow-up experiment.
6. Put the adsorption column into the collection tube, inhale the above solution into the adsorption column, stand for 2min, centrifuge at 12,000rpm for 1min at 4℃, and discard the waste liquid in the collection tube.
7. Put the adsorption column back into the collection tube, add 500μL washing buffer into the adsorption column, stand for 2min, centrifuge at 12,000rpm for 1min at 4℃, and discard the waste liquid in the collection tube.
8. Put the adsorption column back into the collection tube and centrifuge it at 12,000rpm and 4℃ for 2min to remove the residual washing buffer.
9. Remove the adsorption column, put it into a new 1.5mL centrifuge tube, add 30-50μL elution buffer, stand for 3min, centrifuge at 12,000rpm and 4℃ for 2min, and collect DNA solution. The extracted DNA can be used for the next experiment or stored at -20℃.

**Notes:**

1. The precipitated liquid, washing buffer contains irritating chemicals, please take protective measures during operation, avoid direct contact with the skin, prevent inhalation nose. If accidentally contaminated skin or eyes, please rinse immediately with water or saline, if necessary, seek medical attention.
2. If white flocculent precipitates from the lysate, it is normal and can be dissolved in 37℃ water bath.