

<b>REF</b>	<b>G2MBR4-0186</b>	<b>50 Tests</b>
	<b>G2MBR4-0187</b>	<b>250 Tests</b>



# Saliva DNA Extraction Kit

## Intended Use

The MagNXT Saliva DNA Extraction Kit is intended for the extraction of DNA from human saliva or buccal swab samples.

## Intended User

The MagNXT Saliva DNA Extraction Kit is intended for use by molecular biologists or research laboratory professionals.

## Test Principle

The MagNXT Saliva DNA Extraction Kit utilizes a proprietary combination of enzymes, buffers, and magnetic beads to extract DNA from saliva or buccal swab samples. The unique formulation of the kit enables efficient lysis of cells in saliva or buccal swabs, removal of inhibitors, and purification of high-quality DNA. The resulting DNA is suitable for downstream molecular applications, such as PCR, qPCR, and sequencing.

## Summary

The MagNXT Saliva DNA Extraction Kit is a proprietary solution designed for the efficient extraction of high-quality DNA from saliva or buccal swab samples. Purification requires no phenol/chloroform extraction or alcohol precipitation, involves minimal handling and simple centrifugation processing which completely removes contaminants and enzyme inhibitors, such as proteins and divalent cations. The kit is designed to efficiently isolate genomic DNA from saliva or buccal swab samples.

## Storage, Operating Conditions and Stability

- The kit has a shelf life of 18 months from the date of manufacturing.
- The test kit and its component are stable until the expiration date mentioned on the kit box.
- All the kit components are shipped and stored at 15°C to 25°C.

## Reagents Provided

**Table 1. (For 50 Tests)**

Kit Contents	Kit Content Code	Kit Content Quantity G2MBR4-0186
Magnetic Bead Particles	G2MBR3-2066-1	1 X 1 ml
Buffer SLB	G2MBR3-2067-1	1 X 12 ml
Buffer SW1	G2MBR3-2068-1	1 X 14 ml
Buffer SW2	G2MBR3-2069-1	1 X 25 ml
Proteinase K	G2MBR3-2070-1	1 X 24 mg
Protease Dissolve Buffer	G2MBR3-2071-1	1 X 2 ml
Buffer AE	G2MBR3-2072-1	1 X 6 ml

## Reagents Provided

**Table 2. (For 250 Tests)**

Kit Contents	Kit Content Code	Kit Content Quantity G2MBR4-0187
Magnetic Bead Particles	G2MBR3-2066-2	1 X 5 ml
Buffer SLB	G2MBR3-2067-2	1 X 55 ml
Buffer SW1	G2MBR3-2068-2	1 X 60 ml
Buffer SW2	G2MBR3-2069-2	2 X 30 ml
Proteinase K	G2MBR3-2070-2	1 X 110 mg
Protease Dissolve Buffer	G2MBR3-2071-2	1 X 7 ml
Buffer AE	G2MBR3-2072-2	1 X 30 ml

## Materials Required but Not Provided

- Water bath or Heat block
- Micropipettes (Adjustable)
- Disposable barrier (Filter) pipette tips
- 1.5 ml microcentrifuge tubes
- Table top microcentrifuge
- Molecular biology grade ethanol (96-100%)
- Personal protective equipment (Aprons, disposable gloves, goggles etc).
- 1X PBS

## ⚠ Instructions Before Use

- Use preheated Buffer AE for efficient DNA yield.
- Use sterile 1.5 ml microcentrifuge tubes.
- Dilute Buffer SW1 & SW2 with an appropriate amount of molecular biology grade ethanol (96-100%) as shown on label and store at room temperature.
- Add Protease Dissolve Buffer to the Proteinase K, final concentration should be 20 mg/ml. For long term storage, the unused portion of the solution can be stored in aliquots at -20°C until needed.

## Protocol

### A. DNA Purification from saliva sample

- 1). Add 20µl Proteinase K, 200 µl Buffer SLB and 200 µl Sample in a 1.5 ml centrifuge tube. Vortex, spin and incubate at room temperature for 15 mins.
- 2). Transfer 20 µl of Magnetic Bead Particles and 200 µl Absolute Ethanol to a centrifuge tube containing mixture from step 1 and vortex for 15 sec. Leave at room temperature for 5 min, and invert and mix several times.
- 3). Short spin the tube and transfer to a magnetic stand, and wait for ~2 min to adsorb the magnetic beads. Carefully aspirate & discard all the solutions. Do not disturb the beads.
- 4). Add 500 µl Buffer SW1 to the beads and vortex for 10 sec. Transfer to a magnetic stand and let it stand for ~2 min to separate magnetic beads. Completely remove and discard the cleared supernatant.
- 5). Add 500 µl Buffer SW2 and vortex for 10 sec. Transfer to a magnetic stand and let it stand for 2 min to separate magnetic beads. Completely remove and discard the cleared supernatant without disturbing magnetic beads.
- 6). Repeat step 5 once.
- 7). Centrifuge briefly and transfer to magnetic stand. Aspirate all solutions and air dry for 5-10 min.
- 8). Add 50~100µl Buffer AE and vortex to disperse the magnetic beads. Keep it at room temperature for 3-10 min, vortex several times in-between to dissolve the nucleic acid.
- 9). Transfer to a magnetic stand and let the beads separate for 3 min. Transfer the clear DNA solution to a new 1.5 ml centrifuge tube.

### B. DNA Purification from Swabs

- 1). To collect a sample, scrape the swab 5-6 times against the inside cheek.
- 2). Swirl the swab for 30-60 sec in 1-2 ml of 1xPBS.
- 3). Proceed with step 1 of DNA Purification from saliva sample.

### Symbols for Use in the Labeling

Symbols	Definition
	KEEP AWAY FROM SUNLIGHT
	TEMPERATURE LIMIT
<b>RUO</b>	RESEARCH USE ONLY
	UPWARD
	CONSULT INSTRUCTIONS FOR USE
<b>LOT</b>	BATCH CODE
<b>REF</b>	CATALOGUE NUMBER
	USE BY DATE
	DATE OF MANUFACTURE
	MANUFACTURER
	CONTAINS SUFFICIENT FOR <n> TESTS
	CAUTION
	DO NOT USE IF PACKAGE IS DAMAGED



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