Oral Cavity Swab DNA Extraction Kit（Magnetic Bead Method）

Cat No.: DM3300

Package: 50T/ 100T

Storage: 2-8℃ (Note: magnetic beads, 4℃ save, No freezing)

Component	50T	100T	Storage
Lysate	35mL	70mL	RT
Wash Buffer	8.75mL	17.5mL	RT
Lysozyme Liquid	1mL	1mL×2	RT
Proteinase K	20mg	20mg×2	4℃
Elution Buffer	2mL	4mL	RT
Magnetic Bead	1mL×1	1mL×2	2-8℃, Do not freeze
Swab	50	100	RT
EP Tube	50	100	RT
Instruction	1	1	-

Product Description:

Genomic DNA was released by oral mucosal epithelial cells under the action of lysate, and genomic DNA was specifically adsorbed by genomic DNA using silicon-based magnetic beads, washed under the action of rinsing fluid to remove the small amount of impurities adsorbed on magnetic beads, and obtained genomic DNA under the action of elelate. Total DNA can be quickly and simply isolated and purified from oral swabs, maximizing the integrity and purity of extracted genomic DNA, and can be used for downstream experiments of molecular biology such as enzyme digestion, PCR.

Advantages:

The extraction of genomic DNA from oral cells by magnetic bead method has incomparable advantages to the traditional column method. It greatly reduces the experimental time compared with the column method. It has the advantages of simple operation, short time, safe and non-toxic, can complete automatic extraction and so on.

Operation steps (for reference only):

Before use, please check whether absolute ethanol has been added. See the label on the bottle (50T/ 100T rinse needs to add 26.25mL/ 52.5mL absolute ethanol alone).

Protease K solution configuration: 50T packaging 1mL soluble solution to protease K powder, with protease K solution, with protease solution-20℃ storage; 100T packaging 2mL soluble solution into protease K powder, protease K solution, with protease solution-20℃ preservation.

1. Sampling:

The swab was gently rotated and wiped on the oral wall 10-20 times, put the swab into a 2mL centrifuge tube, added 600μL lysate and 20μL proteinase K, broke the handle and shaken for 1min.

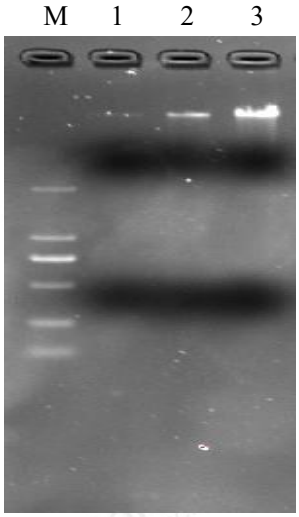
2. The above centrifuge tube was placed in a 75℃ water bath for 20min.

3. With tweezers to the tube, squeeze the swab to obtain as much lysate as possible.
4. The above lysate was aspirated into a new 1.5mL centrifuge tube using a pipette and added with 600μL of absolute ethanol and mixed with a pipette.
5. 20μL magnetic beads were added, mixed and let at room temperature for 5min. Place the 1.5mL centrifuge tube in the magnetic frame for magnetic separation. After the magnetic beads are completely adsorbed in the magnetic frame, the supernatant is removed. Remove the liquid along the pipe wall with a pipette, and pay attention not to absorb the magnetic beads.
6. Add 600μL of rinse (check for ethanol before use) and mix with a vortex oscillator. Place the centrifuge tube in the magnetic frame. After the magnetic beads are completely adsorbed in the magnetic frame, remove the liquid along the tube wall with the pipette. Pay attention not to absorb the magnetic beads.
7. Open the lid of the centrifuge tube and dry it at room temperature for 1min. Note that the drying time should not be too long, which will make the DNA on the magnetic beads not easy to elute.
8. Add 40μL eluent, vortex mix well, stand at room temperature for 5 min, and put the centrifuge tube in the magnetic frame. After the magnetic beads, suck the solution into the new 1.5ml centrifuge tube along the tube wall with a pipette, pay attention not to absorb the magnetic beads, the solution is purified genomic DNA, and store at -20℃.

Note:

1. Magnetic beads before use with a vortex oscillator concussion mixed.
2. The magnetic beads were stored in a 4℃ refrigerator.
3. Manipulations such as freezing, drying and centrifugation reunite magnetic beads, are not prone to resuspend and disperse, and affect the chemical activity of functional groups on the surface of magnetic beads.
4. Step 3 is critical. When the swab is clamped out with tweezers to the nozzle, the swab is not fully squeezed at the nozzle and enough lysate is not obtained, which is likely to cause low extraction concentration.
5. Samples should avoid repeated freezing and thawing, otherwise causing a decrease in extraction volume.

Experimental Result :



		ng/μL	A260/A280	Amount of eluting fluid
1	Company B sampled the samples 10 times	2.70	1.40	40ul
2	This product was sampled for 10 times	28.4	1.75	40ul
3	This product was sampled for 20 times	90.8	1.71	40ul

Result : The eluate volume was 40μL， the sample volume was 1μL, The DL2000 loading sample volume was 1μL, agarose at 1%, 6V/ cm and electrophoresis for 30min.

Lane 1: Company B sampled the samples 10 times.

Lane 2: This product was sampled for 10 times.

Lane 2:This product was sampled for 20 times.

Related products:

D1010 6× DNA Loading Buffer
T1060 50×TAE Buffer
M1060 D2000 DNA Ladder
G5580 10000×Solar Blue Nucleic acid dye
DM1100 Plasmid Small Extraction Kit (Magnetic Bead Method)
DM1300 DNA Product Purification Kit (Magnetic Bead Method)
DM1200 DNA Agarose Gel Recovery Kit (Magnetic Bead Method)