2019.9
Code No. KN-T110005
D105-3

Kaneka Easy DNA Extraction kit version 2

Instruction Manual

⚠ Caution

- This product is intended for research only. Do not use it for medical care or clinical diagnosis of humans and animals, also not for food, cosmetic products, household goods, etc.
- This product contains alkaline reagents. Observe the general laboratory precautions and take safety measures including wearing protective equipment(protective gloves, glasses, etc.) and rinsing thoroughly with water in case of contact with the eyes or skin when using or disposing of this product.
- If it comes in contact with the eyes or skin by accident, perform first-aid including rinsing thoroughly with water, and seek medical attention if necessary.

Features & Applications

This kit is intended for simple extraction of template DNA. The kit can be used in nucleic acid amplification techniques such as PCR and real-time PCR, from a biological sample, more easily than the conventional method, taking approximately 10 minutes.

Content		
Solution A	5ml	1bottle
Solution B	0.7ml	1bottle

Instructions

■ Protocol

[Sample preparation]

(Plant)

Add leaves cut into 5–8 mm^2 size or seed fragments [Note 1)] crushed in a homogenizer into a 1.5 ml microcentrifuge tube.

(Whole blood)

Pipet 5 -15 µl of anticoagulant-treated blood [Note 1)] into a 1.5 ml microcentrifuge tube. If the amount of a sample is little, use the product by reducing the overall amount without changing the ratio between Solution A and Solution B.

(Animal tissue-mouse tail-)

Add a mouse tail which has been cut to 5–8 mm [Note 1)] into a 1.5 ml microcentrifuge tube.

(Stool)

Suspend the stool [Note 1)] in 100 µl sterilized water, then add 10 µl of the suspension into a 1.5 ml microcentrifuge tube.

(Cultured cells and microbes)

Centrifuge 10^3 -10^5 cells [Note 1)]. Discard the supernatant.

[Main operations]

1. Add 100 µl Solution A into the 1.5 ml microcentrifuge tube and mix it well by pipetting.
2. Incubate the 1.5 ml microcentrifuge tube at 98 ℃ for 8 minutes on a heat block, etc.[Note 2)]
3. Allow the 1.5 ml microcentrifuge tube to cool to room temperature, add 14 µl of Solution B and mix it well by pipetting.
4. Mix well the extract obtained in step 3 before start PCR [Note 3)] and inject 0.1–1 % extract into the PCR solution to start PCR.

(Example) When the volume of PCR solution is 50 µl.

- When the extract is 1 % to the PCR solution : Add 5 µl of 10-fold dilution of the extract.
- When the extract is 0.1 % to the PCR solution : Add 5 µl of 100-fold dilution of the extract.

Note 1) : The appropriate amount of a sample varies depending on the type and conditions of the specimen.

Note 2) : The inner pressure of 1.5 ml microcentrifuge tube may increase during incubation, causing the lid to open and the content to spatter. Be sure to lock the lid using a cap lock and so forth. Also make sure to open the lid after the PCR tube has cooled sufficiently.

Note 3) : If the extract contains a large amount of precipitates, it is recommended to put it on a centrifuge at 4 ℃ and 5000 rpm for 5 minutes and to use the supernatant as the template DNA.

Precautions for use

1. This product contains alkaline reagents. Observe the general laboratory precautions and take safety measures including wearing protective equipment (protective gloves, glasses, etc.) when using or disposing of this product. If it comes in contact with the eyes or skin by accident, perform first-aid including rinsing thoroughly with water, and seek medical attention if necessary.
2. If DNA cannot be extracted by following the protocol, it may be improve the results as follows :
   - Extend the incubation time at 98 °C (by 5 minutes at most).
   - Cut the specimen into smaller pieces or crush it using a homogenizer, etc.
   - If the results still do not improve, we recommend using an enzyme appropriate for nucleic acid amplification in extracts that contain impurities.
3. Depending on the sample conditions, we recommend to store the extract at -20 ℃, if it is not going to be used immediately.

Storage method / Expiration date

■ **Storage method** : Store at room temperature away from direct sunlight.
■ **Expiration date** : It is indicate on the outer package of this product.

Method of disposal

Be sure to wear protective equipment (protective gloves, glasses, etc.) when handling this product.
■ Residual wastes : If the amount is small, use paper towel or waste cloth to absorb it and dispose of it by incineration.
■ Contaminated containers and packing materials : When disposing of contaminated containers, first remove the content completely.

Warranty

■ We are only responsible for replacing the product with an alternative in case of a defect in our product. We will not be held liable for any other damages caused through the use of this product, whether direct or indirect.

Contact

KANEKA CORPORATION

Medical Devices Solutions Vehicle
New Technology Development Group
Innovative Medical Team

1-8, Miyamaecho, Takasagocho, Takasago City, Hyogo 530-8288, Japan
Mail info_dquick@kaneka.co.jp
URL https://www.kaneka-labtest.com/