

Food Ex

User Manual

Cat. No. E01-01-1111

For the extraction of DNA from raw foods
Includes main components for 50 extractions



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HAI KANG LIFE CORPORATION LIMITED

The Food Ex kit is suitable for the extraction of DNA from plant tissues, seeds, flours, grits, unprocessed foods and feeds. For processed foods we recommend the Food Ex Plus kit (Cat No. E01-01-1112) which is available from Hai Kang Life Corporation Limited.

PLEASE READ THROUGH THE ENTIRE PROTOCOL BEFORE STARTING.

1. KIT COMPONENTS

- 3 x 0.8 ml Digestion Reagent (store at -20°C)
- 1 x 50 ml Buffer A (store at 4°C)
- 5 x 1.2 ml Buffer B (store at 4°C)

Storage conditions

Buffer A and B should be stored at 4°C, Digestion Reagent should be stored at -20°C

Additional reagents required (all molecular grade)

- Double distilled water (ddH₂O)
- 80% Isopropanol
- Phenol
- Absolute ethanol
- Chloroform
- 70% Ethanol
- Isoamyl alcohol

Precautions

Buffer B contains guanidine-HCl. Always wear gloves and protective clothing when handling. Protect Buffer B from excessive heat and light. Phenol is corrosive and should be handled with care.

2. PROCEDURE

Preparation of reagents

Buffer A

- Warm up Buffer A to room temperature.

Buffer B

- Warm up Buffer B to room temperature.
- Ensure all crystals in the buffer have dissolved.
- If necessary, pre-warm an aliquot of Buffer B for about 30 min at 37°C before starting the extraction procedure to ensure that any crystals in the buffer have dissolved. Allow Buffer B to cool to room temperature.

Digestion Reagent

- Thaw frozen reagents before use.
- Invert mix thawed reagents thoroughly.

Note: Frequent thawing and freezing may inactivate the test components.

DNA Extraction

Note: We recommend an additional extraction negative control for each analysis, i.e. a complete extraction without sample material. Contamination can be monitored in this way.

1. Grind raw material to fine powder with a blender
2. Add powder up to the 0.4 ml marking of a 2 ml microfuge tube. (We recommend extraction of samples be carried out in duplicate).
3. Add 860 µl Buffer A
4. Add 100 µl Buffer B and vortex
5. Add 40 µl Digestion Reagent and vortex well
6. Incubate in a 60°C water bath for 3 hours to 16 hours with occasional mixing
7. Cool the suspension to room temperature for 5 min
8. Centrifuge the tube at 11,200 g for 10 min
9. Transfer the clear supernatant to a clean 2 ml microfuge tube
10. Add equal amount of phenol:chloroform:isoamyl alcohol (25:24:1, v/v) to the supernatant
11. Vortex to mix and centrifuge at 11,200 g for 5 min
12. Transfer the upper aqueous layer to a clean 2 ml microfuge tube and add an equal volume of chloroform
13. Vortex to mix and centrifuge at 11,200 g for 5 min
14. Transfer the upper aqueous layer (DNA solution) to a clean 2 ml microfuge tube and add 800 µl absolute ethanol and incubate at -20°C for at least 30 min
15. Centrifuge the microfuge tube at 11,200 g for 15 min
16. Discard the supernatant and add 1 ml, ice-cold 70% ethanol to the DNA pellet
17. Centrifuge the microfuge tube at 11,200 g for 15 min
18. Carefully remove the ethanol and air dry the DNA pellet
19. Dissolve DNA pellet in 20 µl ddH₂O
20. Proceed to measure the DNA concentration or store DNA at -20°C

3. TECHNICAL ASSISTANCE

Our technical staff will provide technical assistance you may need in using this kit. Simply call +(852) 2111 2123 during our office hours:

Monday – Friday: 9:00 a.m. to 5:30 p.m.

Saturday: 9:00 a.m. to 1:00 p.m.

A recorded message (in English, Cantonese or Putonghua) may be left at other times. Alternatively, you are welcomed to contact our technical staff by fax or email.

Fax: +(852) 2111 9762

Email: technical@haikanglife.com

4. WARRANTIES AND LIABILITIES

Hai Kang Life Corporation Limited warrants the products manufactured by it are free of defects in materials and workmanship when used in accordance with the applicable instructions for a period equal or shorter of one year from the date of shipment of the product(s) or the expiration date marked on the product packaging under the storage conditions recommended in the instructions and/or on the package. Application protocols published by Hai Kang Life Corporation Limited are intended to be only guidelines for the buyers of the products. Buyers are expected to validate the kit to their individual application. Hai Kang Life Corporation Limited makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose.

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