TIANamp Feedstuff Animal DNA Kit

For isolation of genomic DNA from animal feedstuff

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TIANamp Feedstuff Animal DNA Kit

(Spin Column)

Cat. no. 4992711/4992712

Kit Contents

Contents	4992711 (50 preps)	4992712 (200 preps)
Buffer GA	30 ml	2 × 50 ml
Buffer GB	30 ml	2 × 50 ml
Buffer GD	13 ml	52 ml
Buffer PW	15 ml	50 ml
Buffer TE	15 ml	60 ml
Proteinase K	1 ml	4 × 1 ml
Spin Columns CB3	50	200
Collection Tubes 2 ml	50	200
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Compatible Reagents

RNase A (100 mg/ml) (TIANGEN)

Storage

TIANamp Feedstuff Animal DNA Kit can be stored dry at room temperature (15-30°C) for up to 15 months without showing any reduction in performance and quality. If any precipitate forms in the buffers, it should be dissolved by warming the buffers at 37°C for 10 min before use.

Introduction

TIANamp Feedstuff Animal DNA Kit is based on silica membrane technology and provides special buffer system for many kinds of feedstuff sample's gDNA extraction. The spin column is made of new type silica membrane can bind DNA efficiently and specifically. Simple centrifugation processing completely removes contaminants such as proteins and organic compounds. Purified DNA is integrating, pure and stable.

DNA purified by TIANamp Feedstuff Animal DNA Kit is highly suited for restriction analysis and PCR analysis.

Product Features

Simple and fast: gDNA with high purity can be purified within 1 h.

Wide applicability: Suit for most kinds of animal feedstuff, cells and tissues.

High purity: gDNA purified by this kit can be directly used to perform lots of downstream analysis such as PCR and enzyme digestion.

Important Notes Please read these notes before use.

1. If a precipitate has formed in Buffer GA or Buffer GB, warm buffer at 37°C until the precipitate has fully dissolved.
2. All centrifugation steps should be carried out in a conventional table-top microcentrifuge at room temperature (15-30°C).

Protocol

Ensure that Buffer GD and Buffer PW have been prepared with appropriate volume of ethanol (96-100%) as indicated on the bottle and shake thoroughly.

1. Samples preparation

   50 mg of grinded feedstuff sample should be suspended in 320 µl Buffer GA, then mix completely by vortex.

   Note: If RNA-free genomic DNA is required, add 4 µl RNase A (100 mg/ml, self-provided). Mix by vortex for 15 sec, and incubate for 5 min at room temperature (15-30°C).

2. Add 20 µl Proteinase K, mix thoroughly by vortex. Incubate at 65°C for 20-30 min meanwhile mix the reaction 2-3 times.
3. Add 340 µl Buffer GB , mix thoroughly by vortex, and incubate at 65°C for 10 min meanwhile mix 2-3 times.

   Note: Precipitates may form during the 65°C incubation in step 2 and step 3. Please re-suspend precipitates by vortex before the 65°C incubation.
4. Centrifuge at 12,000 rpm (~13,400 × g) for 2 min, and transfer 440 µl of supernatant to a new microcentrifuge tube.

   Note: Please repeat step 4 if any insoluble particle existed in the supernatant, or else the particle may block the column.
5. Add 220 µl ethanol (96-100%) to the supernatant, and mix thoroughly by inverting upside and down for 6-8 times. A white precipitate may form on the addition of ethanol.

   Note: If the volume of supernatant is more or less than 440 µl, then add 1/2 volume of ethanol (96-100%) to the supernatant. For example: add 250 µl of ethanol (96-100%) to 500 µl of supernatant.
6. Pipet the mixture from step 5 into the Spin Column CB3 **(in a 2 ml collection tube)** and centrifuge at 12,000 rpm (~13,400 × g) for 2 min. Discard flow-through and place the spin column into the collection tube.
7. Add 500 µl Buffer GD **(Ensure ethanol (96-100%) has been added)** to Spin Column CB3, and centrifuge at 12,000 rpm (~13,400 × g) for 30 sec, then discard the flow-through and place the spin column into the collection tube.
8. Add 600 µl Buffer PW **(Ensure ethanol (96-100%) has been added)** to Spin Column CB3, and centrifuge at 12,000 rpm (~13,400 × g) for 30 sec. Discard the flow-through and place the spin column into the collection tube.
9. Repeat Step 8.
10. Centrifuge at 12,000 rpm (~13,400 × g) for 2 min, discard the flow-through and dry the membrane completely by incubating at room temperature for several minutes.

    Note: The purpose of this step is to completely remove the residual ethanol since the residual ethanol of Buffer PW may have some negative effect on downstream application (PCR, enzyme digestion).

11. Place the Spin Column CB3 in a new clean 1.5 ml microcentrifuge tube, and pipet 50-200 µl Buffer TE directly to the center of the membrane. Incubate at room temperature for 2-5 min, and then centrifuge for 2 min at 12,000 rpm (~13,400 × g).

    Note: In order the increase gDNA yield, eluted solution could be transferred back to the center of the membrane of Spin Column CB3, incubate at room temperature for 2 min, and then centrifuge for 2 min at 12,000 rpm (~13,400 × g). The volume of elution buffer should not be less than 50 µl, since it may affect recovery efficiency. The pH value of eluted buffer will have a great effect on eluting. We suggest using buffer TE or distilled water (pH 7.0-8.5) to elute gDNA. For long-term storage of DNA, eluting in Buffer TE and storing at -20°C is recommended to avoid DNA degradation.