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User's Manual and Instructions

Genomic DNA Extraction Kit

Catalog Number: K5016005

Applications

- Genomic DNA Isolation

Description

Biochain's DNA extraction kit is a convenient tool for scientist isolate high quality genomic DNA. The isolated DNA can be used for PCR amplification template, Southern Blot analysis, SNP analysis, DNA methylation research, etc. The kit contains enough reagents for isolating genomic DNA from 5 grams tissue and cells.

Kit Components

Item	Amount	Storage
1. Solution 1	50 ml	4°C
2. Phenol B	50 ml	4°C
3. Solution 2	6 ml	RT
4. TE buffer	5 ml	RT
5. RNase (10 μg/μl)	20 μl	-20°C

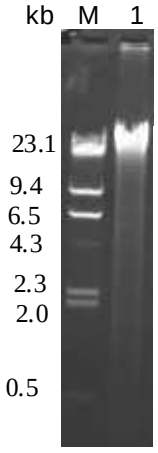

Fig. The genomic DNA image from monkey colon tissues on 1.2% agarose gel

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Items not supplied:

1. Isopropanol
2. 100% Ethanol
3. 70% Ethanol
4. Chloroform

Recommended Protocol:

1. Weigh certain amount of tissue, crush tissue by hammer, and put it into a new 50 ml centrifuge tube. Stand the tube on ice. Don't let tissue thaw when handling it.
2. Add 10 ml solution 1 per gram tissue, homogenize until no visible tissue mass. Add 1 ml solution 2 per gram tissue, mix well
   Important: high speed and long time homogenization will cut genomic DNA into small parts. If large size genomic DNA desired, grinding tissue in liquid nitrogen or dry ice by teflon (or glass) pestle **before solution 1 is added.**
3. Add 10 ml Phenol B per gram tissue, shake vigorously for 1 minute
4. Add 4 ml Chloroform per gram tissue, shake vigorously to mix
5. Place tube on ice for 15 minutes
6. Centrifuge the tube at 18,000 g for 15 minutes at 4°C
7. Transfer the supernatant to a new 50 ml centrifuge tube.
8. Add 1 volume of isopropanol to the supernatant from step 7, and mix well
9. Store at –20°C for at least one hour
10. Centrifuge the tube at 18,000 g for 15 minutes at 4°C
11. Discard the supernatant, dissolve the DNA pellet in TE buffer
12. Store the DNA at 4°C

Treat the Genomic DNA with RNase (if necessary): Dilute the genomic DNA at 400 μg/ml, and add 2 μl RNase, incubate at 37°C for 30 minutes. Make another phenol extraction, alcohol precipitation to get rid of the RNase.