XIT™ Genomic DNA from Mouse Tail

For the isolation of genomic DNA from mouse tail

INTRODUCTION

The *XIT*™ Genomic DNA from Mouse Tail kit is designed for the isolation of genomic DNA from mouse tails. The *XIT*™ kit uses cell lysis, protein digestion and precipitation and finally DNA precipitation to isolate high quality genomic DNA. *XIT*™ Genomic DNA from Mouse Tail kit is offered for the processing 5mm sections of mouse tail. The purified DNA has an A_{260}/A_{280} ratio between 1.7 and 1.9, and is up to 200kb in size.

ITEM(S) SUPPLIED	Cat # 786-350 *For 125mm Mouse Tail*
XIT™ Lysis Buffer	10ml
LongLife™ Proteinase K	0.5ml
XIT™ Protein Precipitation Buffer	2.5ml
TE Buffer	1.5ml
LongLife™ RNase	0.5ml

STORAGE CONDITIONS

The kit is shipped at ambient temperature. Upon arrival, store the *LongLife*™ Proteinase K and *LongLife*™ RNase at -20°C, all other kit components can be stored at room temperature. The kit components are stable for 1 year, if stored properly.

ITEMS NEEDED BUT NOT SUPPLIED

Isopropanol, 70% ethanol

PREPARATION BEFORE USE

1. Read appropriate protocol and preheat waterbaths or heating blocks to appropriate temperatures.
2. Equilibrate TE Buffer to 50-60°C.

PROTOCOL

1. Using a sharp razor or scalpel blade, chop 5mm (5-10mg) mouse tail into small pieces.
2. Transfer the ground or homogenized tissue to a 1.5ml microfuge tube and add 400µl *XIT*™ Lysis Buffer.
3. Add 10µl *LongLife*™ Proteinase K to the tube and mix by inverting the tube 10-20 times. Incubate at 55°C overnight and invert the tube periodically during the incubation.

   NOTE: After incubation, the tube can be briefly centrifuged to remove the undigested veterbrae..
4. After incubation, incubate the sample on ice for 1 minute to quickly cool. Do not store on ice.
5. Add 90µl *XIT*™ Protein Precipitation Buffer to the sample and mix by inverting the tube 10-20 times.
6. Centrifuge at 14,000g for 3 minutes. Carefully, transfer the supernatant to a fresh tube.

   NOTE: The precipitated protein should form a tight white pellet. If not, incubate the sample on ice for 5 minutes and repeat the centrifugation.
7. Add 400µl isopropanol to the supernatant and mix by gently inverting the sample 30-50 times.
8. Centrifuge at 14,000g for 5 minutes.
9. Discard the supernatant and use a pipette to carefully remove excess liquid.

10. Add 200µl 70% ethanol and invert the tube twice to wash the pellet.
11. Centrifuge at 14,000g for 2 minutes.
12. Discard the supernatant and drain the tube on a piece of clean absorbent paper. Allow to air dry for 15 minutes.
13. Add 50µl prewarmed TE buffer and 1µl *LongLife*™ RNase to remove the RNA (if required).
14. Rehydrate the genomic DNA by incubating at 55-65°C for one hour, followed by an overnight incubation at room temperature to ensure complete genomic DNA hydration.
15. Store DNA at 4°C, for long term storage store at -20 or -80°C.

RELATED PRODUCTS

1. ***EZ-Grind™ (Cat # 786-139):*** *A highly efficient grinding resin that is pre-aliquoted into 1.5ml grinding tubes and is supplied with matching pestles.*
2. ***Pestle & Tubes (Cat. # 786-138P):*** *DNase/RNase free microfuge tubes (1.5ml) and matching pestles for the grinding of small samples and isolation of nuclei.*
3. ***Molecular Grinding Resin™ (Cat # 786-138):*** *For grinding of small samples. High tensile micro particles that do not bind nucleic acids.*

NOTE: *For other related products, visit our web site at www.GBiosciences.com or contact us.*