GenDEPOT

Mouse Tail Genomic DNA Extraction Kit

M9100

Storage

Refer to the attached bottle label for proper storage.

Contents

- Product Manual
- Mouse Tail Lysis Buffer (MTBL) Cat#. M9501
- DNA Binding Buffer (DBB) Cat#. M9502
- Washing Buffer (WB) Cat#. M9503
- Elution Buffer (EB) Cat#. M9504
- Proteinase K Solution(PK), > 600mAU/ml Cat#. M9505
- Mini Spin Column for DNA/RNA Purification Cat#. S1920

Shipping Condition

Ship on ambient.

Introduction

The mouse Tail Genomic DNA Extraction Buffer Kit provides a fast, simple tech-nique for the preparation of purified and intact DNA from mouse tails, tissues and cultured cells in as little as 20 minutes, depending on the number of samples processed. For this system, a spin column purification protocol can be used. The genomic DNA isolated with this system is of high quality and serves as an excellent template for agarose gel analysis, restriction enzyme digestion and PCR analysis.

Equipment and Reagents to be Supplied by User

- Pipets and pipet tips
- Reagent reservoirs for multichannel pipets
- Vortexer
- Ethanol (96-100%)
- Optional: RNase A (100 mg/ml)
- Microcentrifuge tubes (1.5ml or 2ml)
- Microcentrifuge with rotor for 1.5ml and 2ml tubes
- Thermomixer, shaking water bath, or rocking platform for heating at 56°C

Sample collection and storage

Best results are obtained with fresh material or material that has been immedi-ately frozen and stored -20°C or -70°C. Repeated freezing and thawing of stored samples should be avoided, since this leads to reduced DNA size. Use of poor-quality starting material will also lead to reduced yield of purified DNA.
After proteinase K digestion, samples can also be stored in Buffer ATL for up to 3 months at ambient temperature without any reduction in DNA quality.

Preparation

Preparation of Washing Buffer (WB)

Buffer WB are supplied as concentrates. Before using for the first time, add the appropriate volume of ethanol (86-100%) as indicated on the bottle and shake thoroughly (WB:Ethanol = 4:6)

Proteinase K Solution (PK), > 600 mAU/ml

Proteinase K is stable for at least one year after delivery when stored at room temperature (15-25°C). To store for more than one year or if ambient temperature often exceeds 25°C, we suggest keeping proteinase K at 2-8°C.

Elution Buffer (EB)

Buffer EB is 10mM Tris-HCl, 0.5mM EDTA, pH 8.8 Elution with Buffer AE gurantees optimal recovery and stability of eluted DNA. However, if you wish to elute DNA with water please ensure that the pH of the water is at least 7.0 (deionized water from certain sources can be acidic). For long-term storage of DNA, elution in Buffer AE is strongly recommended since DNA stored in water is subject to acid hydrolysis Buffer AE should be used at room temperature (15-25°C). Heating Buffer AE before elution is not necessary.

Important Notes

- All centrifugation steps are carried out at room temperature (15-25°C) in a microcentrifuge.
- Vortexing should be performed by pulse-vortexing for 5-10 s.
- Optional: RNase A may be used to digest RNA during the procedure.
  RNase A is not provided.
- Buffer MTLB and Buffer DBB may form precipitated upon storage. If necessary, warm to 56°C until the precipitates have fully dissolved.

Procedure

1. Place one (rat) or two (mouse) 0.4 - 0.6 cm lengths of tail into a 1.5ml micro-centrifuge tube. Add 180ul Buffer MTLB. Earmark the animal appropriately.
2. Add 20ul proteinase K, Mix thoroughly by vortexing, and incubate at 56°C until the tissue is completely lysed. Vortex occasionally during incubation to dispense the sample, or place in a thermomixer, shaking water bath, or on a rocking platform.

Note: Lysis is usually complete in 3-8 h. If it is more convenient, samples can be lysed overnight; this will not affect them adversely. After incubation the lysate may appear viscous, but should not be gelatinous as it may clog the spin column.
If a substantial gelatinous pellet remains after incubation and vortexing, extend incubation time at 56°C for proteinase K digest and/or increase amount of pro-teinase K to 40ul.

Optional: If RNA-free genomic DNA is required, add 4ul RNase A (100 mg/ml),mix by vortexing, and incubate for 2 min at room temperature before continuing with step 3.

3. Vortex for 15s. Add 200ul Buffer DBB to the sample, and mix thoroughly by vortexing. Then add 200ul ethanol (96-100%), and mix again thoroughly by vor-texing or pipetting to yield a homogeneous solution. Buffer DBB and ethanol can be premixed and added together in one step to save time whe processing multiple samples.