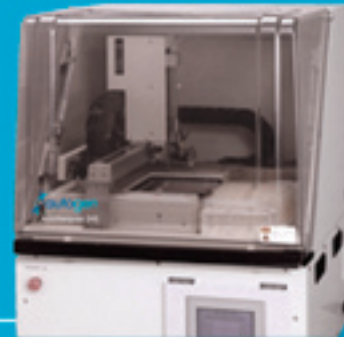


AutoGenprep 245T Application Guide

DNA Tissue



- I. **Purpose:** To extract genomic DNA from animal or human tissue.
- II. **Chemical Principal:** Modified CTAB/Proteinase K digestion & Organic extraction method.
- III. **Protocol Parameters:**
 - A. **Sample Volume:** 5 ~ 10mg (Mouse liver, lung, brain and uterus)
10 ~ 15mg (Mouse tail, heart and testis)
** Optimal starting volume depends on type of animal and tissue.*
 - B. **Maximum Number of Samples:** 24 samples per run.
 - C. **Processing Time:** 1.8 hours for 12 samples
2.5 hours for 24 samples.
This includes drying and resuspending RNA steps.
 - D. **Yield*:** 3 ~ 6 μg of gDNA / 1mg of liver
0.8 ~ 2 μg of gDNA / 1mg of other type of tissues
** Measured by OD260 value. Actual yield may vary, depending on the condition and type of tissue sample.*
 - E. **Quality:** Typical OD260/280 values in water are 1.70 - 1.95
The DNA can be used directly in downstream processes such as PCR, real time PCR and restricted enzyme reactions.
- IV. **Running the Protocol:**
 - A. Load Reagents and Samples
 - B. Select a Protocol
 - C. Enter Number of Samples
 - D. Start the Run

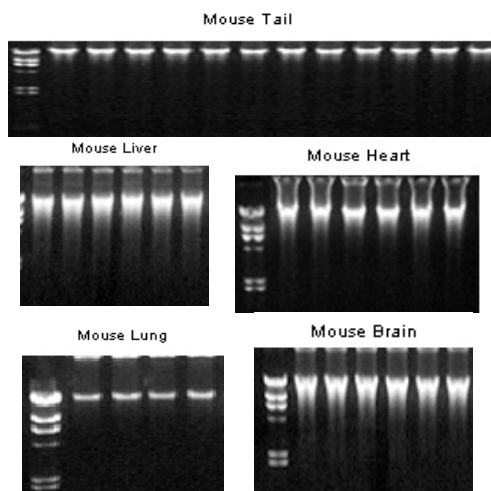
V. Example of extracted genomic DNA on 245T:

A. Extracted genomic DNA:

Gel Electrophoresis:

Sample: approx. 0.5-3 μ g of genomic DNA was loaded onto the gel

Gel: 0.7% agarose gel 1 x TBE, 50V x 1.5 hr



B. Typical Yield and Purity*

Tissue Type	Tail	Brain	Heart	Lung	Liver	Testis	Uterus
Sample weight (mg)	15	10	15	5	5	20	10
Yield (μ g)	13	21	26	5	30	50	9
OD260/280	1.93	1.85	1.88	1.74	1.85	1.90	1.80

Actual yield and purity may vary, depending on the condition of original tissue and digested sample.

VI. Extraction and Purification Process

Process Site	Purpose	System Process
1. Manual	Digest tissue	Dissolve ProK in Reagent TD-S0, at 0.4mg/ml concentration, add 350 μ l to sample, and incubate at 50-65C overnight.
2. Automated	Remove protein	Add Reagent TD-S1 and mix.
3. Automated	Collect DNA	Add Reagent TD-S2 and mix. Centrifuge to pellet protein and cellular debris and transfer supernatant to new tube.
4. Automated	Precipitate DNA	Add Reagent TD-S3, mix, centrifuge to precipitate DNA, and discard supernatant.
5. Automated	Wash DNA	Add Reagent TD-S4, mix, centrifuge and discard supernatant.
6. Automated	Dry DNA	Add Reagent TD-S5, mix, centrifuge and discard supernatant, then centrifuge tube to dry DNA sample.
7. Automated	Resuspend DNA	Add Reagent TD-S6.

AutoGen

84 October Hill Road, Holliston, MA 01746

Tel: 508-429-5965 | Fax: 508-429-9765

E-mail: info@autogen.com