Genomic DNA extraction with Exgene™ Tissue SV mini from 3 types of mouse tissues

Experimental Conditions

Materials Required

- Exgene™ Tissue SV mini (100 preps: 104-101 / 250 preps: 104-152)
- 0.5 M EDTA, pH 8.0 (for mouse tail)
- 1.5 ml microcentrifuge tube
- 2.0 ml microcentrifuge tube
- Microhomogenizer
- Microcentrifuge (≤14,000 x g)
- Vortex mixer
- Pipette & sterilized pipette tips
- Suitable protector (e.g., lab coat, disposable gloves, goggles, etc.)

Sample Information

- Extraction conditions

Sample	Amount	Elutoin volume
Mouse brain	20 mg	200 µl
Mouse spleen	10 mg	
Mouse tail	1 cm	

Protocol

Exgene™ Tissue SV mini Protocol

*** For more details and methods, please refer to the handbook of Exgene™ Tissue SV mini.**

Sample Preparation

- **Mouse brain & spleen**

1. Put 20 mg of mouse brain and spleen into each 2.0 ml microcentrifuge tube. Add 200 µl of Buffer TL and homogenize thoroughly with microhomogenizer.
2. Add 20 µl of Proteinase K solution. Mix completely by vortexing or pipetting. Incubate at 56˚C until the sample is completely lysed.
3. The subsequent protocol follows **step 3 on page 14 of A. Protocol for Animal Tissue.**

- **Mouse tail**

1. Add 30 µl of 0.5 M EDTA solution (pH 8.0) to 180 µl of Buffer TL in the 1.5 ml microcentrifuge tube. Chill on ice before use.
2. Mince 1.0 cm of mouse tail as small as possible. Transfer it to the 1.5 ml microcentrifuge tube containing chilled EDTA-Buffer TL mixture.
3. Add 20 µl of Proteinase K solution (20 mg/ml, provided). Mix the mixture by vortexing or pipetting. Incubate at 56˚C until the sample is completely lysed.
4. The subsequent protocol follows **step 3 on page 14 of A. Protocol for Animal Tissue.**

Result

Sample	No.	Yield (µg)	$A_{260/280}$
Brain	1	2.32	2.05
	2	3.20	1.91
	3	2.58	1.91
MEAN		**2.7**	**1.96**
Spleen	1	124.20	1.87
	2	120.96	1.87
	3	133.26	1.82
MEAN		**126.14**	**1.85**
Tail	1	26.34	1.85
	2	33.30	1.87
	3	29.90	1.86
MEAN		**29.85**	**1.86**

Table 1. Concentration and purity of DNA extracted from each mouse tissue.
Genomic DNA was extracted from the indicated mouse tissues in triplicate using Exgene™ Tissue SV mini (104-101). The concentration and purity of DNA were measured in a NanoDrop™ 2000 (ND-2000, supplier T).

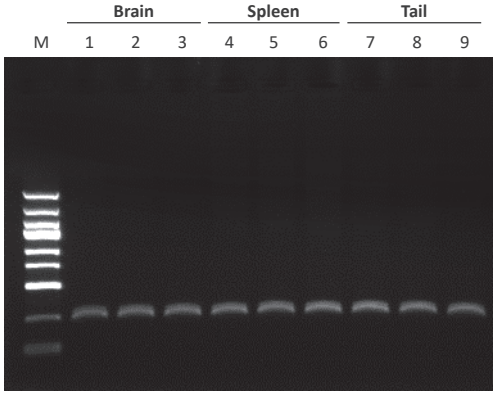

Figure 1. PCR analysis of extracted DNA.
Mouse GAPDH gene fragment (PCR product size: 233 bp) was amplified using DNA extracted from each mouse tissue as a template.
M: GENESTA™ 250 bp DNA Ladder (GA-025).