



# QuickGene Series Application Guide

## Genomic DNA Isolation from Mammalians Tissue

### QuickGene DNA Tissue Kit S

Enables easy and rapid isolation of high purity genomic DNA from Mammalians Tissue

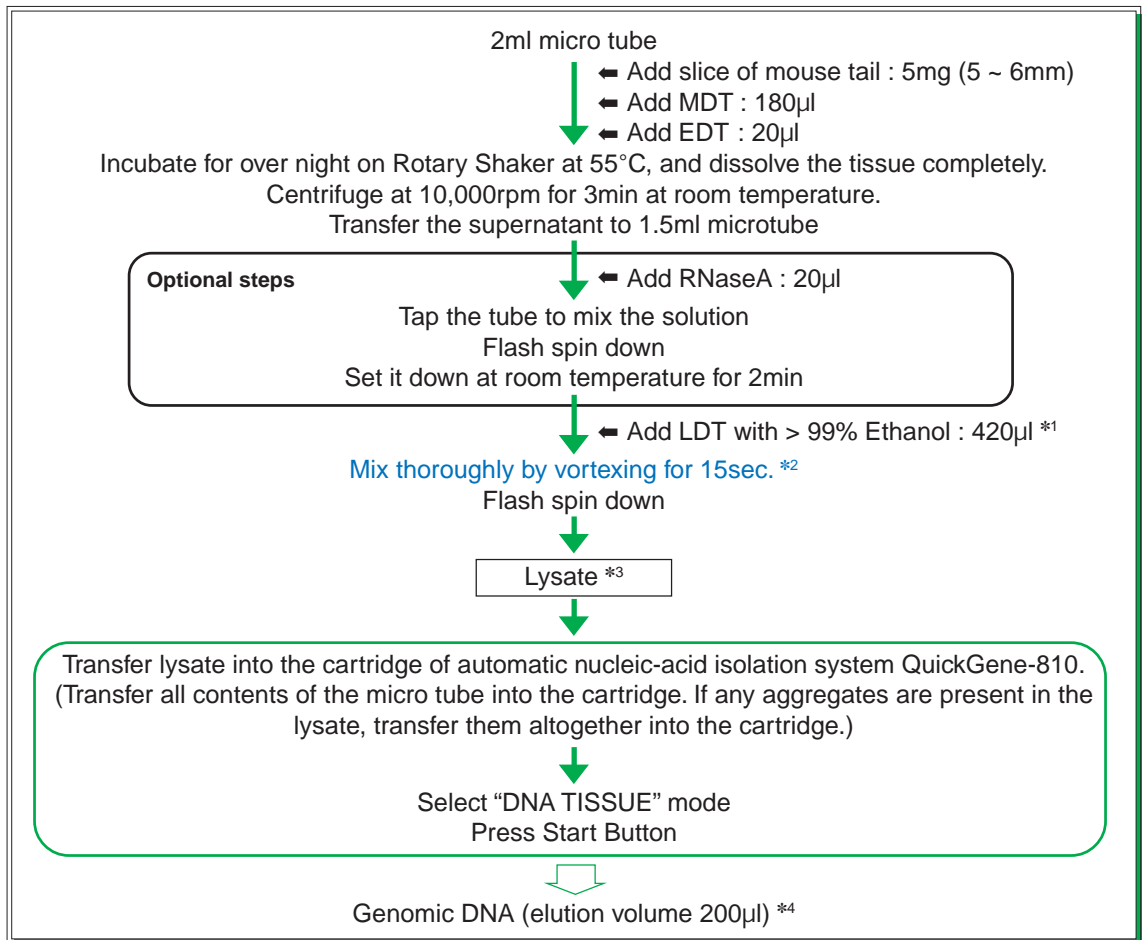
#### Features

- Simultaneously extracts genomic DNA from 8 sets of Lysate in only 13 minutes
- Sophisticated genomic DNA isolation system without using spin columns
- Safety operation without using hazardous solvent such as phenol
- Isolated genomic DNA should be sufficient purity and yield for PCR, restriction enzyme digestion, Southern Blotting and other applications because of uncontaminated protein and chaotropic salt.

#### Application 1

##### ● Genomic DNA Extraction from the slice of Mouse Tail

##### Protocol



\*1 : Add 240µl of > 99% Ethanol into 180µl of LDT and mix completely before using.

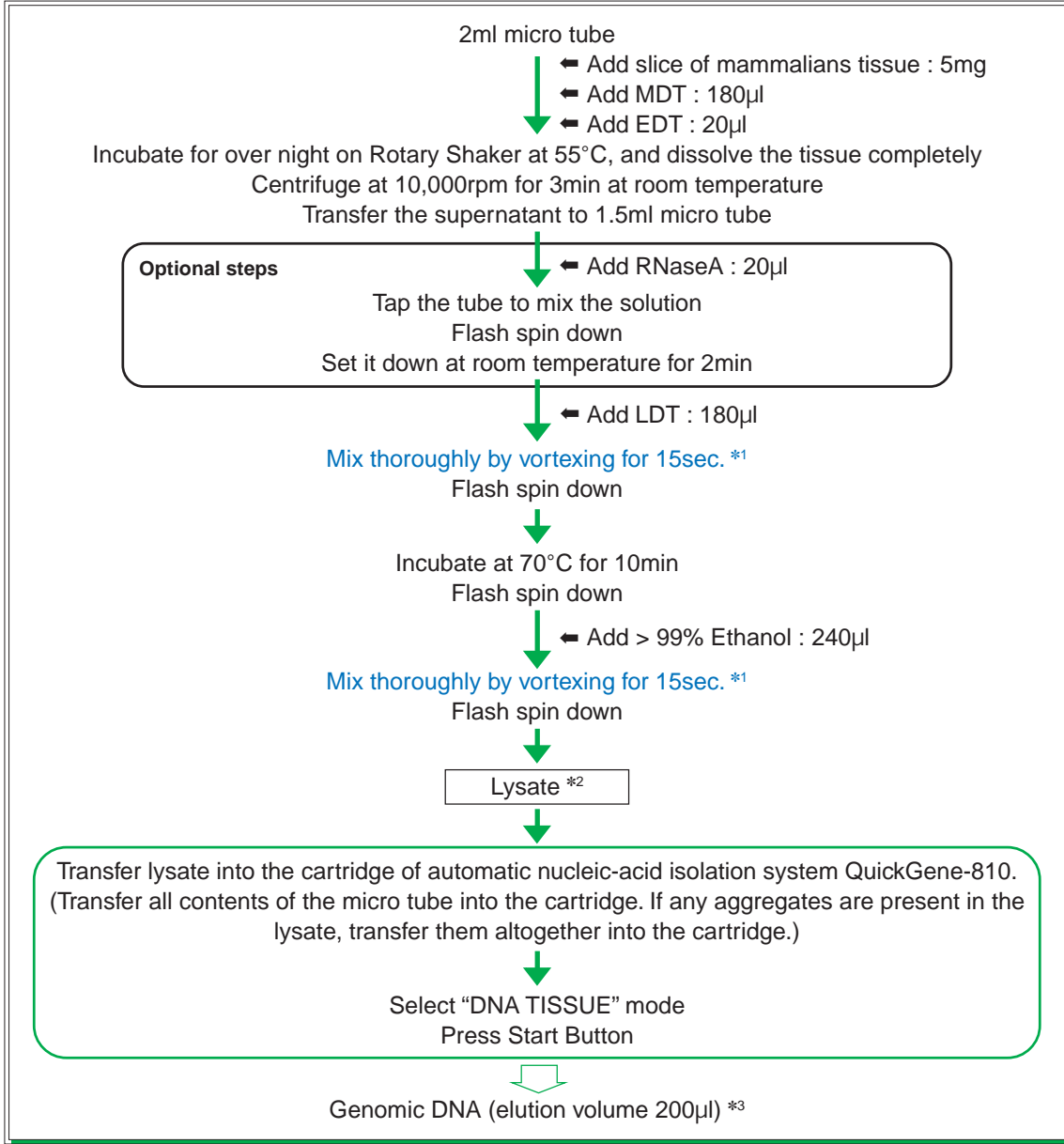
\*2 : Mix completely by vortexing at the maximum speed.  
If the mixing is not enough by vortexing, use the tapping, pipetting or inverting.

\*3 : Transfer the lysate into the cartridge within 30min.

\*4 : This elution volume is initial value of "DNA TISSUE" mode.

## Application 2

### ● Genomic DNA Extraction from Mammalians Tissue Protocol



\*1 : Mix completely by vortexing at the maximum speed.

If the mixing is not enough by vortexing, use the tapping, pipetting or inverting.

\*2 : Transfer the lysate into the cartridge within 30min.

\*3 : This elution volume is initial value of "DNA TISSUE" mode.

## Recommended RNaseA

Product Name	Manufacture	Cat. No.	Preparation
RibonucleaseA	Sigma	R5125	*1, *2
RibonucleaseA	Sigma	R5500	*1, *2
RibonucleaseA	Sigma	R6513	*1
RibonucleaseA	Sigma	R4642	
RNaseA	QIAGEN	19101	

\*1 : Prepare 100mg/ml solution with 10mMTris-HCl (pH7.5) and 15mMNaCl

\*2 : Incubate at 100°C for 15min to inactivate DNase

## Components of the Kit

- ProteinaseK (EDT)
- Tissue Lysis buffer (MDT)
- Lysis buffer (LDT)
- Wash buffer (WDT)
- Collection buffer (CDT)
- Cartridges (CA)
- Collection tubes (CT)
- Caps (CAP)
- Waste tubes (WT)

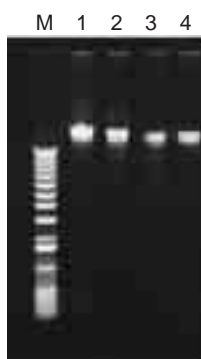
## Preparation of reagents

- Wash buffer (WDT)

Add 160ml of > 99% Ethanol into the bottle and mix with inversion the bottle gently before using.

## Results and discussion

### 1) AGE of isolated genomic DNA from Mouse Tissue



M : Size marker  
 1 : Lung tissue sample  
 2 : Kidney tissue sample  
 3 : Tail tissue sample  
 4 : Liver tissue sample

5mg tissue sample was used to extract genomic DNA with the automatic nucleic-acid isolation system QuickGene-810 and QuickGene DNA tissue kit S.

By using QuickGene isolation system and reagents, genomic DNA was isolated from mammalian tissue with high purity and high yield.

### 2) Isolated genomic DNA from mouse tail

#### ● The yield of genomic DNA (5mg of tissue)

QuickGene isolation system and reagents	3.6 $\mu$ g
Comparison method using spin column	3.6 $\mu$ g

#### ● The purity of genomic DNA (determination of protein contamination) : $A_{260/280}$

	#1	#2	#3	#4	#5	#6	#7	#8
QuickGene isolation system and reagents	1.95	1.94	1.95	1.93	1.95	1.97	1.96	1.96
Comparison method using spin column	1.96	1.94	1.97	2.01	1.95	1.99	2.00	1.99

$A_{260/280}$  : Protein contamination lowers the absorbance ratio.

