



# QuickGene Series Application Guide

## Total RNA Extraction from Canine or Feline Adipose Tissue, Cutis and Primary-cultured Adipose Cells

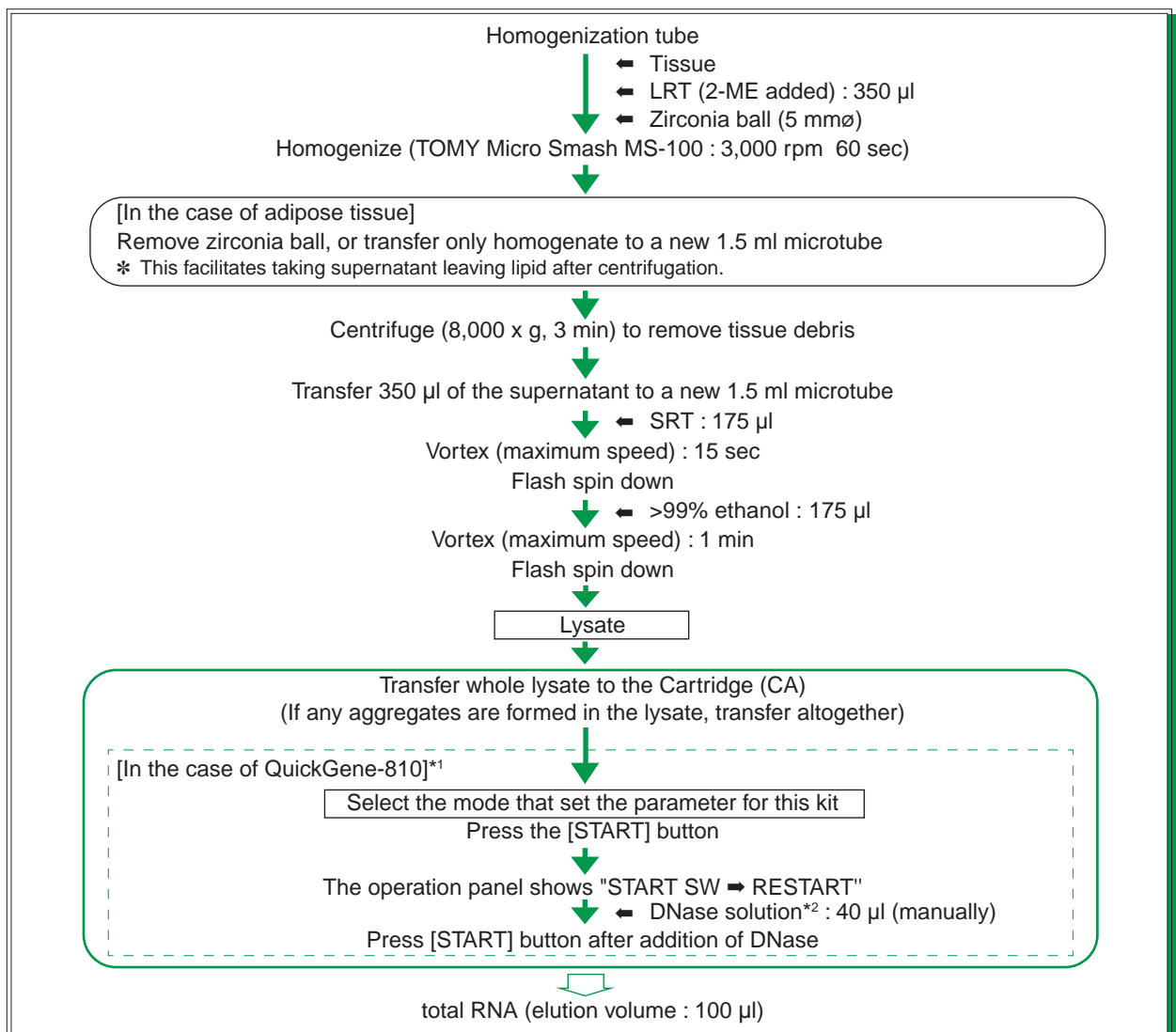
Kit : QuickGene RNA tissue kit S  
Model : QuickGene-810 / QuickGene-Mini80

### Summary

This is the example of total RNA extraction from canine or feline adipose tissue, cutis and primary-cultured adipose cells.

### Protocol 1

#### ● Total RNA extraction from canine or feline adipose tissue and canine cutis



\*1 : In the case of QuickGene-Mini80, please refer to Kit Handbook for the details.

\*2 : Use RQ1 RNase-Free DNase(Promega).

## Results: Total RNA extraction from canine or feline adipose tissue

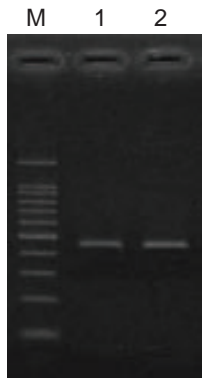
Total RNA was extracted from canine or feline adipose tissue using QuickGene system (QuickGene-810 and QuickGene RNA tissue kit S) and Competitor A kit (spin column method).

### ● The yield and purity of total RNA

Amounts of tissue	Yield (µg)		Purity (A260/280)	
	QuickGene	Competitor A kit	QuickGene	Competitor A kit
30 mg	0.5	0.8	1.88	1.58
100 mg	2.3	-	2.12	-
200 mg	4.6	4.2	2.16	2.17
400 mg	28.0	-	2.00	-

### ● RT-PCR

RT-PCR amplification for canine PPAR gamma (695-1130) or feline PPAR gamma (695-1130) was performed by use of ReverTra Ace (TOYOBO) on total RNA extracted from canine or feline adipose tissue using QuickGene system.



M : Marker (100 bp DNA Ladder : TOYOBO)  
 1 : Canine PPAR gamma (695-1130)  
 2 : Feline PPAR gamma (695-1130)

For RT-PCR performed on solution of total RNA extracted from canine or feline adipose tissue, electrophoretic bands of the amplification products were detected to give excellent results.

## Results : Total RNA extraction from canine cutis

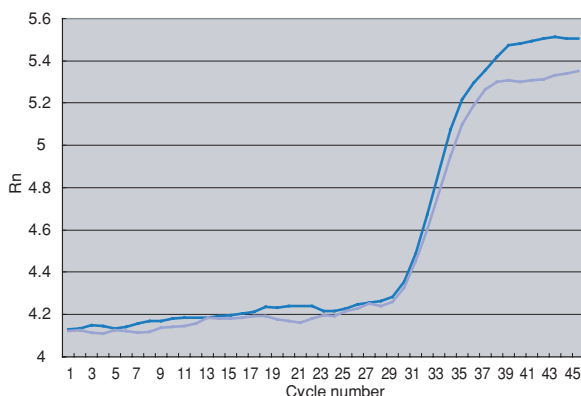
Total RNA was extracted from canine cutis using QuickGene system (QuickGene-810 and QuickGene RNA tissue kit S) and Competitor A kit (spin column method).

### ● The yield of total RNA

Amounts of tissue	Yield (µg)	
	QuickGene	Competitor A kit
1 mm <sup>2</sup>	below detection limit	below detection limit

### ● One-step Realtime RT-PCR

One-step Realtime RT-PCR was performed to amplify GAPDH by use of QuantiTect Probe RT-PCR kit (QIAGEN) and ABI PRISM7000 Sequence Detection System (Applied Biosystems) with total RNA extracted from canine cutis using QuickGene system.

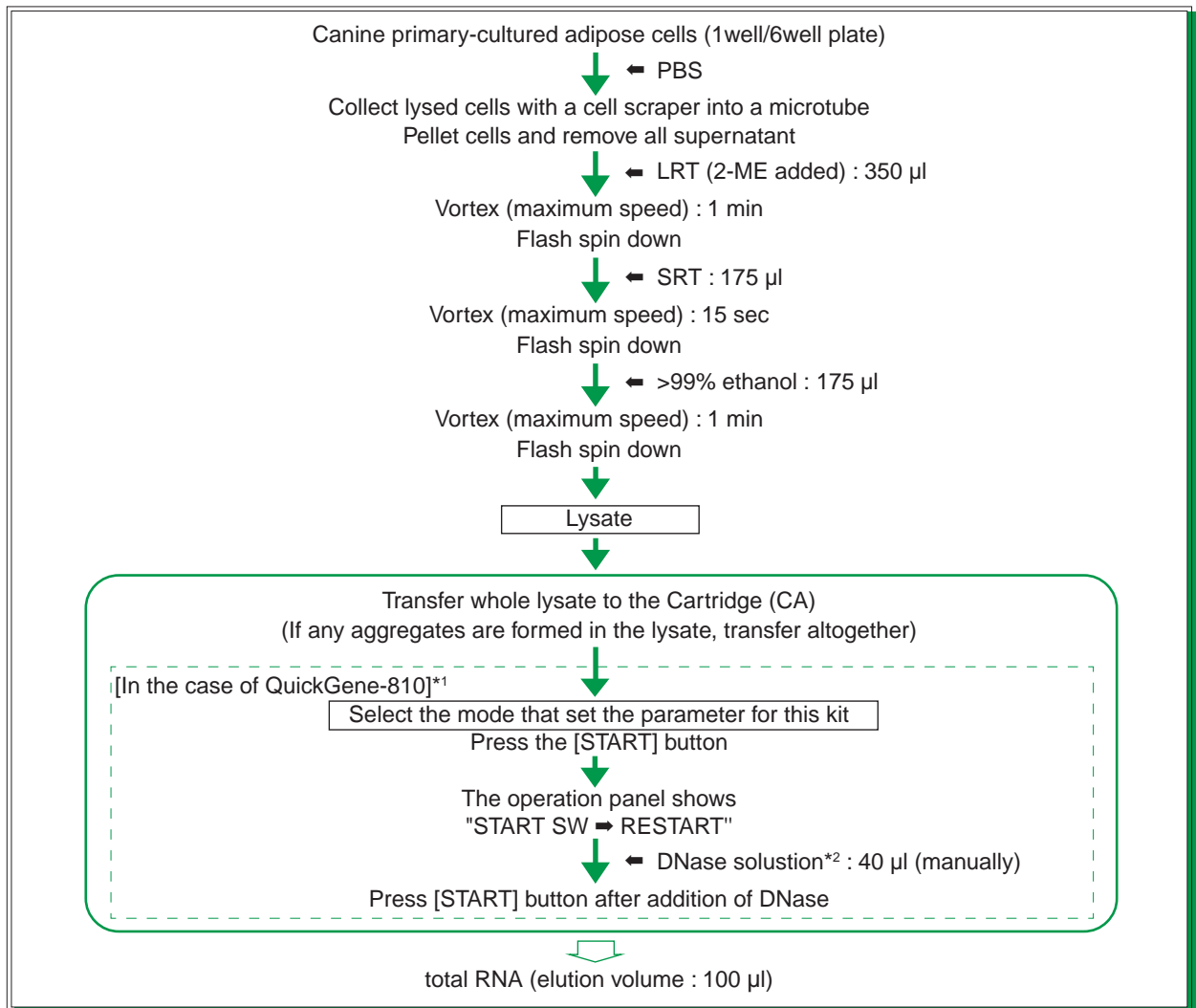


Although the yield of total RNA was below detection limit for measurement with absorptiometer, one-step Realtime RT-PCR showed excellent results.

\* Both are data for total RNA extracted with QuickGene system.

## Protocol 2

### ● Total RNA extraction from canine primary-cultured adipose cells (with QuickGene RNA tissue kit S)



\*1 : In the case of QuickGene-Mini80, please refer to Kit Handbook for the details.

\*2 : Use RQ1 RNase-Free DNase(Promega).

## Results : Total RNA extraction from canine primary-cultured adipose cells

Total RNA was extracted from canine primary-cultured adipose cells using QuickGene system (QuickGene-810 and QuickGene RNA tissue kit S) and Competitor A kit (spin column method).

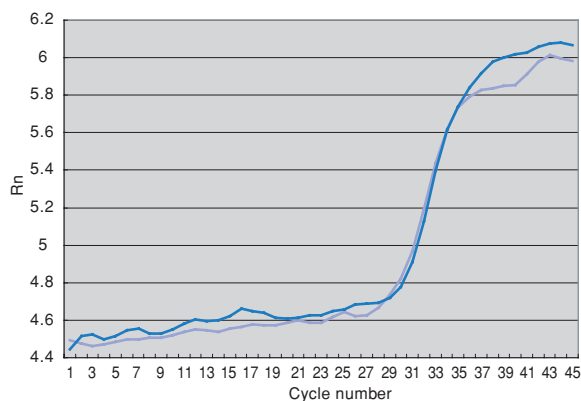
### ● The yield and purity of total RNA

Number of cells	Yield (µg)		Purity (A260/280)	
	QuickGene	Competitor A kit	QuickGene	Competitor A kit
1 well / 6 well plate	7.9	1.3	2.04	2.67

Use of QuickGene system enables high-yield total RNA extraction, compared with Competitor A kit (spin column method).

### ● One-step Realtime RT-PCR

One-step Realtime RT-PCR was performed to amplify GAPDH by use of QuantiTect Probe RT-PCR kit (QIAGEN) and ABI PRISM7000 Sequence Detection System (Applied Biosystems) on total RNA extracted from canine primary-cultured adipose cells using QuickGene system.



One-step Realtime RT-PCR performed on solution of total RNA extracted from canine primary-cultured adipose cells showed excellent results.

\* Both are data for total RNA extracted with QuickGene system.

#### \* Trade mark and exclusion item

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