

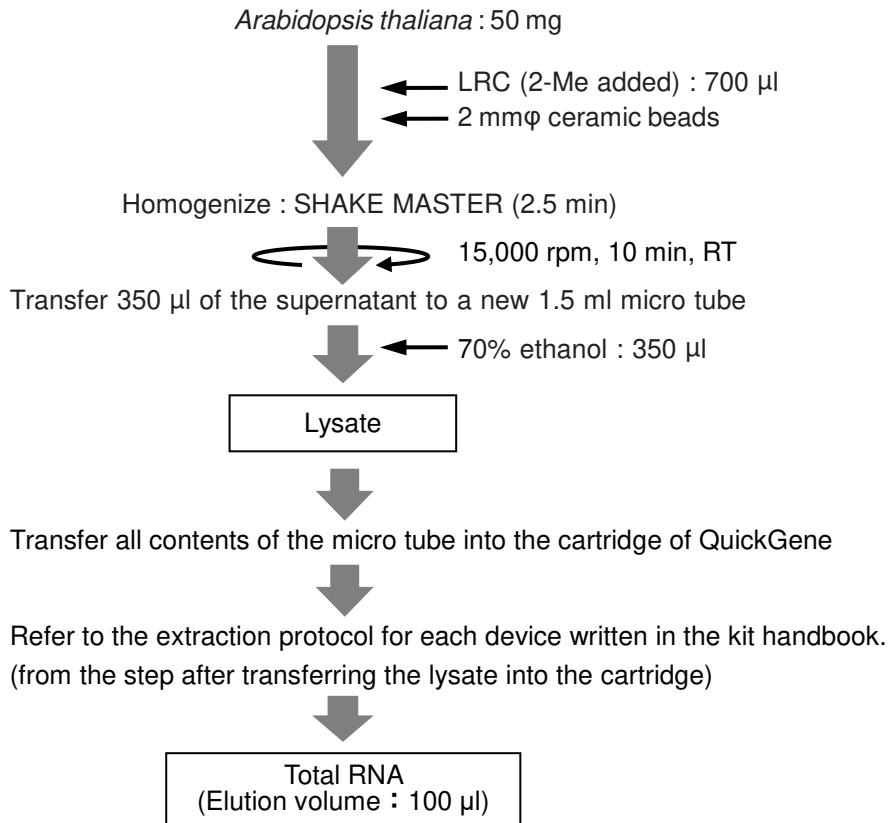


## **13. Total RNA Extraction from Tissue of Plant**

RB-1

## Total RNA Extraction from *Arabidopsis Thaliana*

### Protocol



### Results

No Data

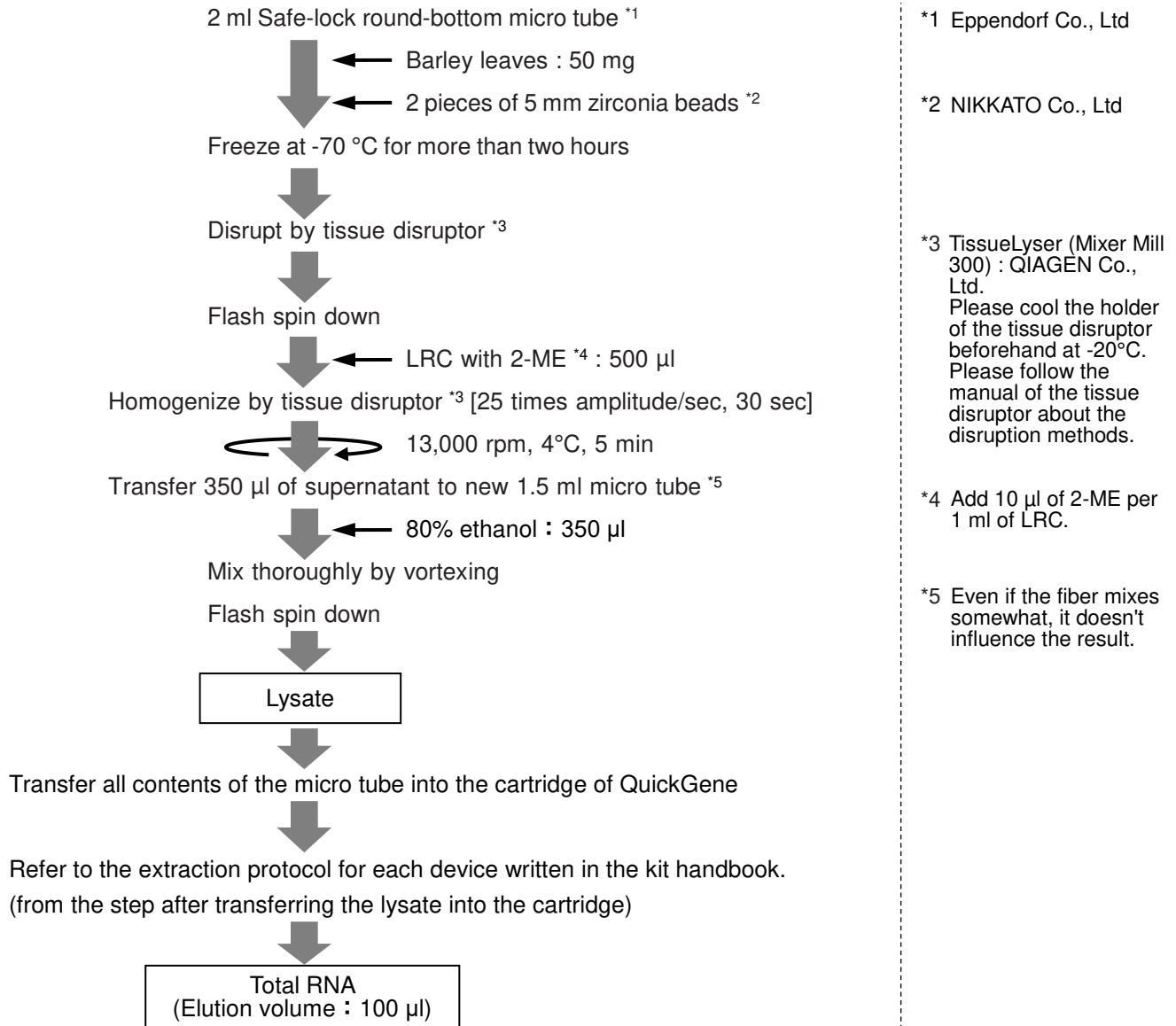
### Common protocol is usable for the following

No Data

RB-2

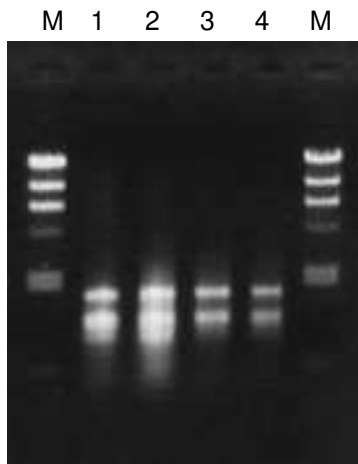
## Total RNA Extraction from Barley Leaves

### Protocol



## Results

### Electropherogram



Electrophoresis condition 0.8% Agarose gel

TAE Buffer

2  $\mu$ l of sample / well

M :  $\lambda$ -Hind III (100 ng)

1 : Wheat leaves (gramineae)

2 : Barley leaves (gramineae)

3 : *Chenopodium quinoa* leaves (*Chenopodiaceae*)

4 : *Nicotiana benthamiana* leaves (*solanaceae*)

### The yield of Total RNA / Protein contamination : A260/280

Sample	Yield ( $\mu$ g)	A260/280
Barley leaves	12.2	2.12

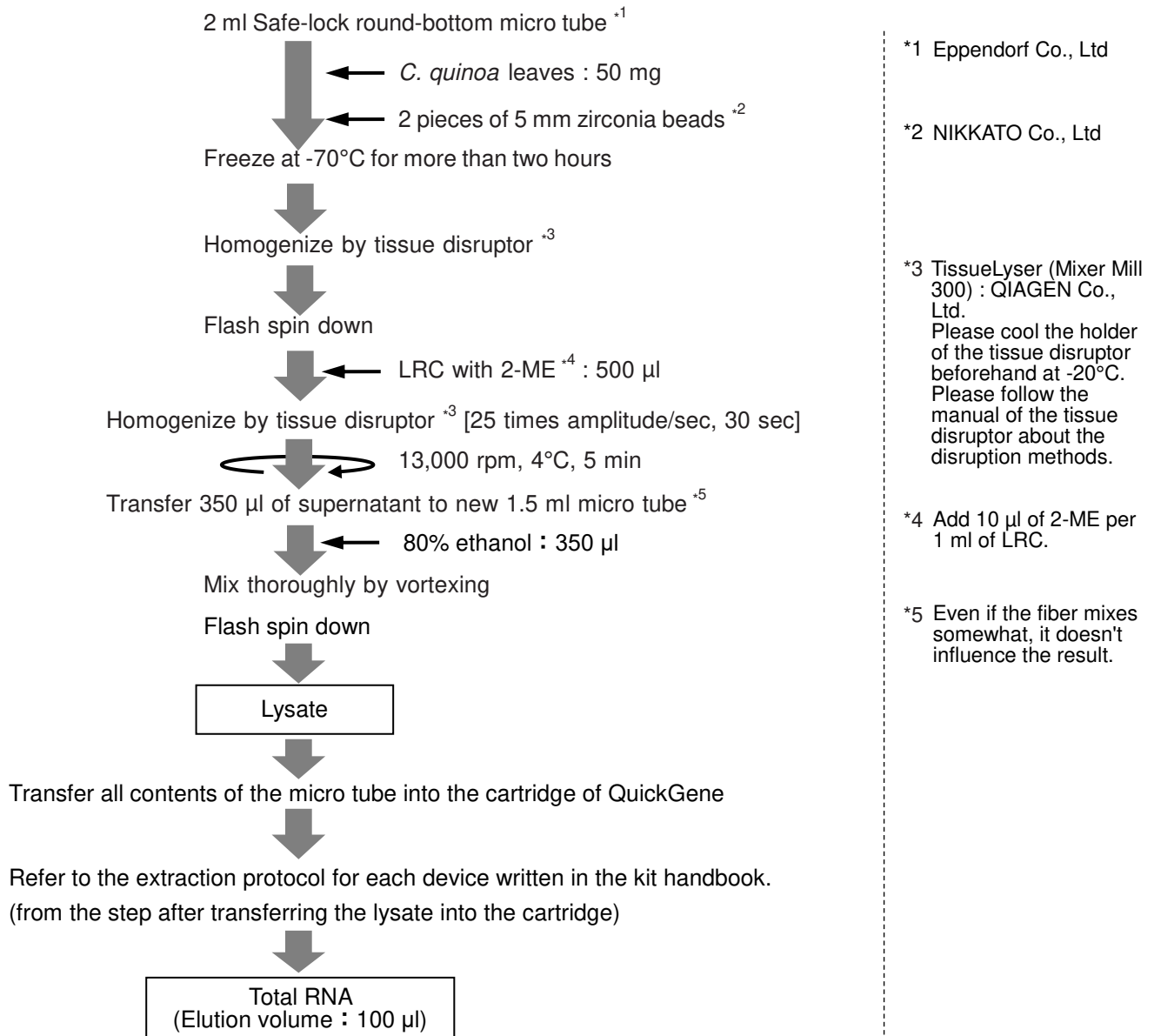
### Common protocol is usable for the following

*N. benthamiana* leaves, *C. quinoa* leaves, Wheat leaves

RB-3

## Total RNA Extraction from *C. quinoa* Leaves

### Protocol



\*1 Eppendorf Co., Ltd

\*2 NIKKATO Co., Ltd

\*3 TissueLyser (Mixer Mill 300) : QIAGEN Co., Ltd.  
Please cool the holder of the tissue disruptor beforehand at -20°C. Please follow the manual of the tissue disruptor about the disruption methods.

\*4 Add 10 µl of 2-ME per 1 ml of LRC.

\*5 Even if the fiber mixes somewhat, it doesn't influence the result.

## Results

### Electropherogram



Electrophoresis condition 0.8% Agarose gel  
TAE Buffer

2  $\mu$ l of sample / well

M :  $\lambda$ -Hind III (100 ng)

1 : Wheat leaves (*gramineae*)

2 : Barley leaves (*gramineae*)

3 : *Chenopodium quinoa* leaves (*Chenopodiaceae*)

4 : *Nicotiana benthamiana* leaves (*solanaceae*)

### The yield of Total RNA / Protein contamination : A260/280

Sample	Yield ( $\mu$ g)	A260/280
<i>C. quinoa</i> leaves	3.88	2.02

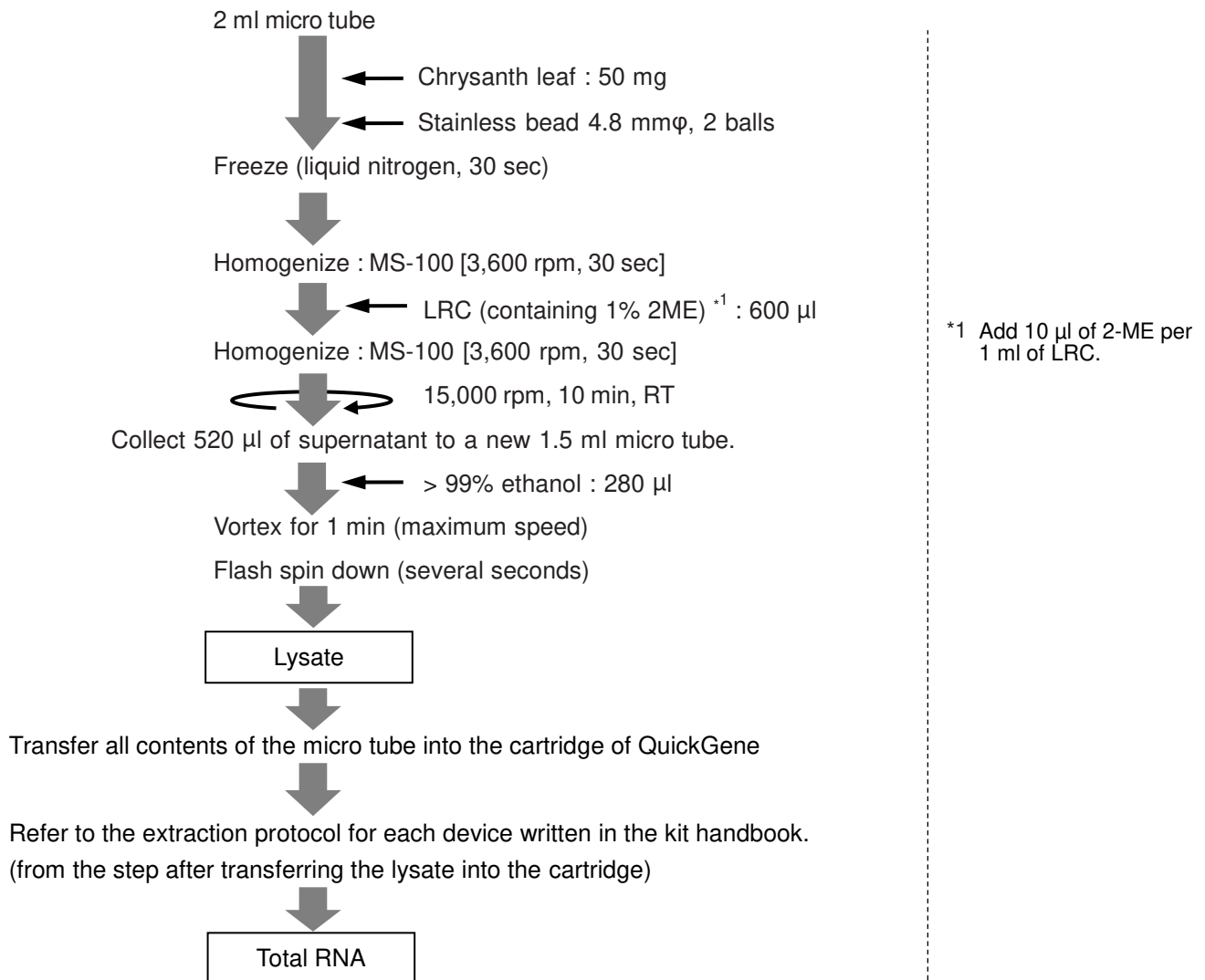
### Common protocol is usable for the following

*N. benthamiana* leaves, Barley leaves, Wheat leaves

RB-4

## Total RNA Extraction from Chrysanth Leaf

### Protocol



### Results

No Data

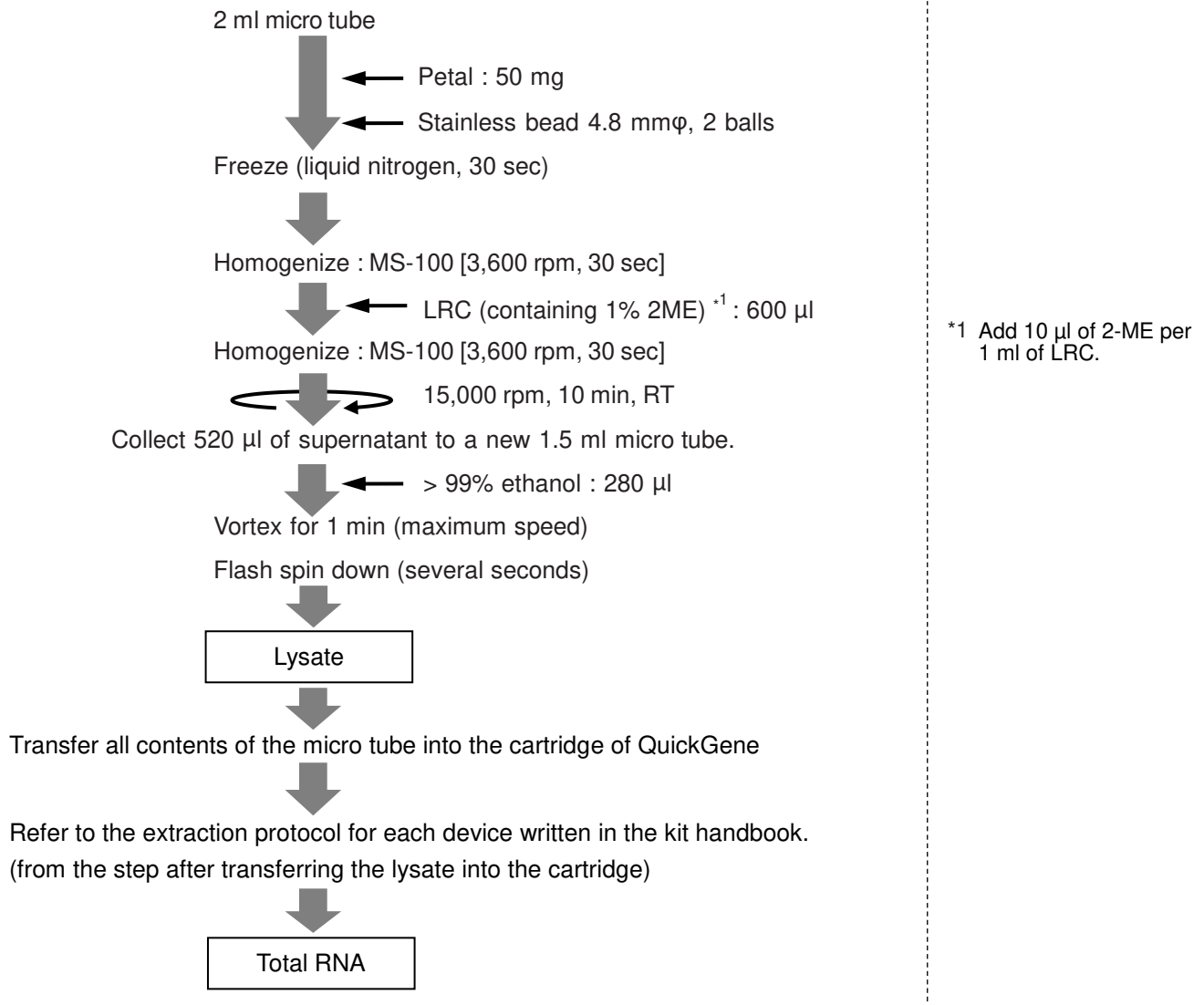
### Common protocol is usable for the following

No Data

RB-5

## Total RNA Extraction from Petal

### Protocol



### Results

No Data

### Common protocol is usable for the following

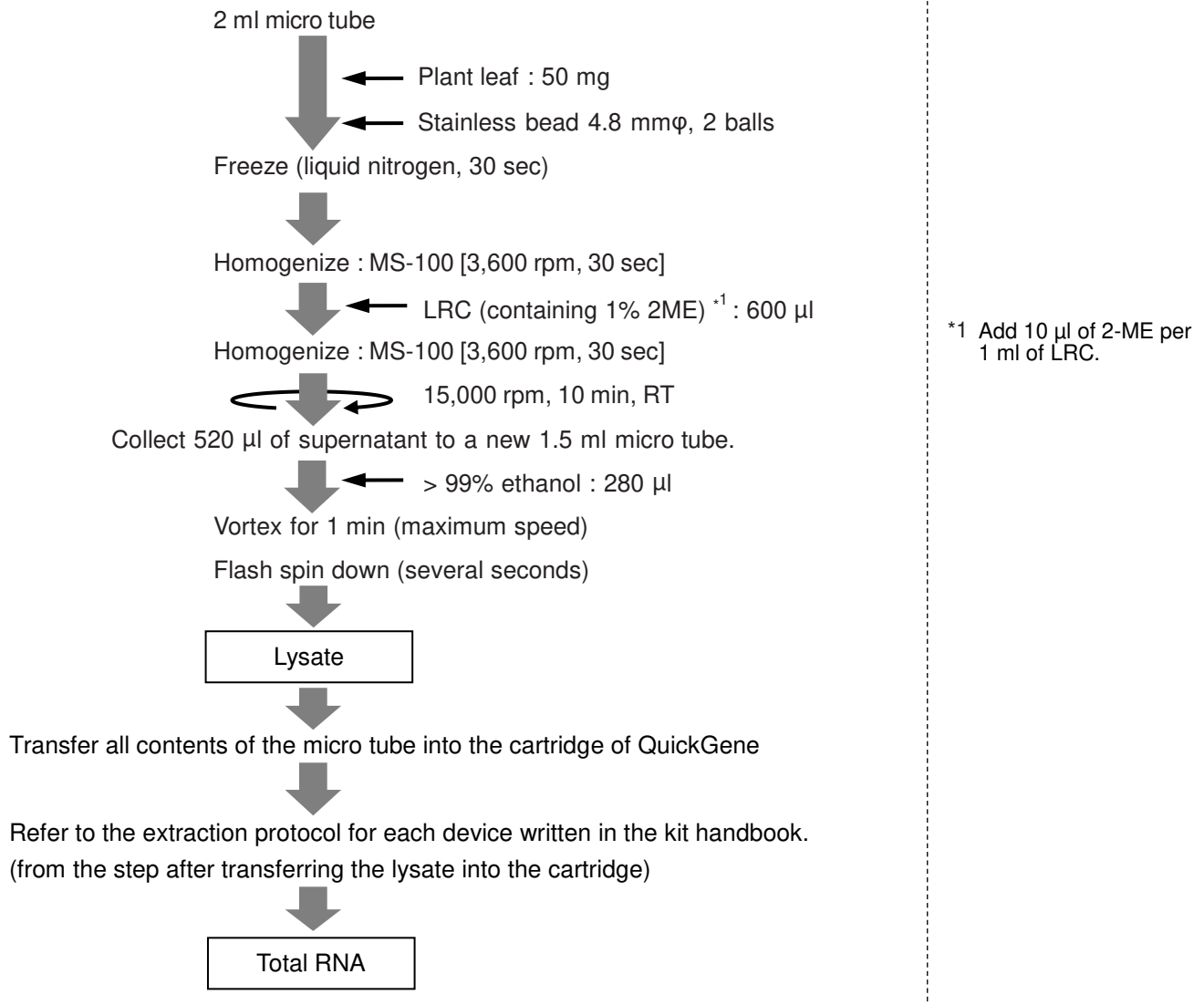
No Data



RB-6

## Total RNA Extraction from Plants

### Protocol



### Results

No Data

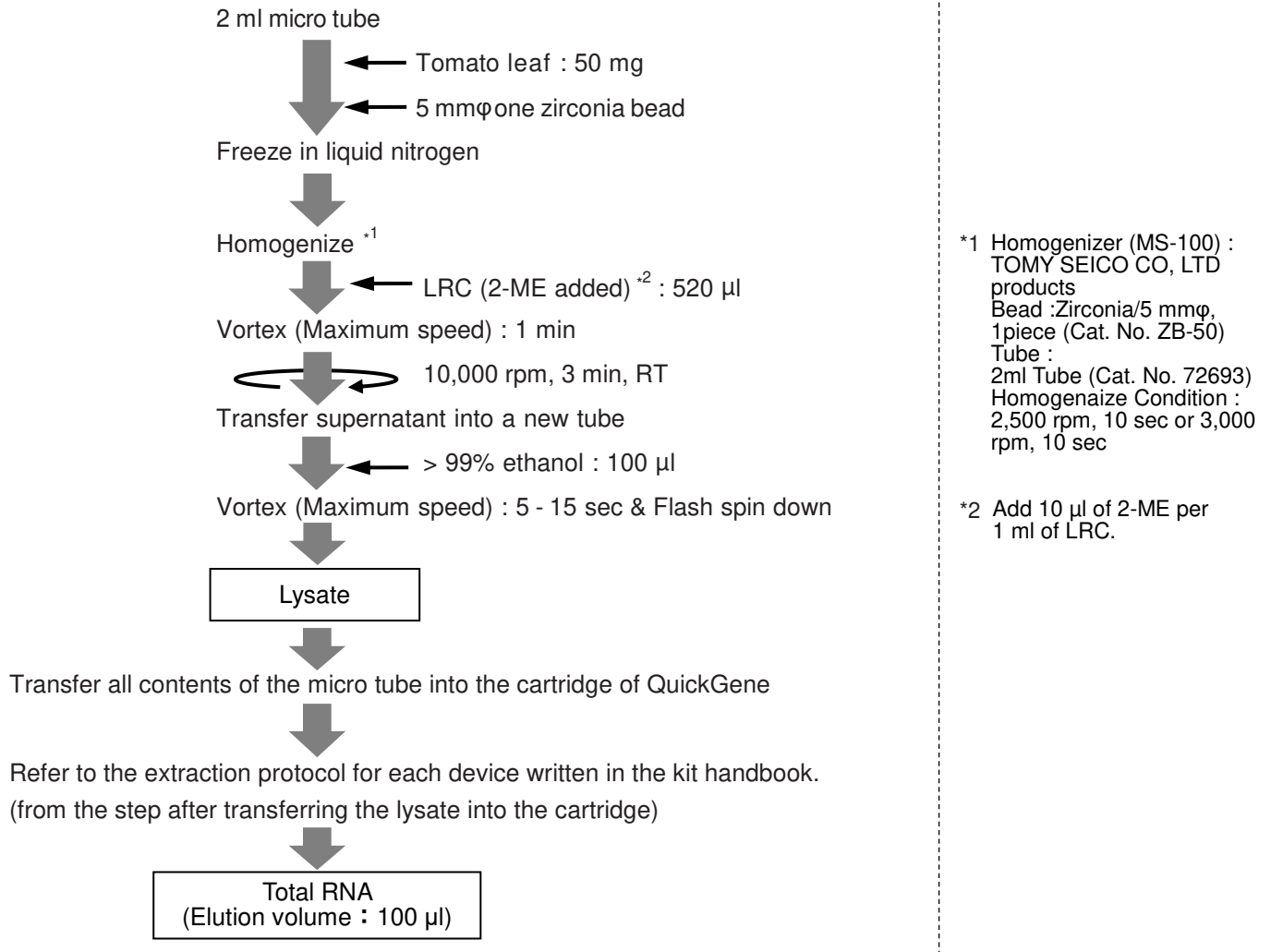
### Common protocol is usable for the following

No Data

RB-7

## Total RNA Extraction from Tomato Leaf

### Protocol



### Results

The yield of total RNA / Protein contamination : A260/280  
/ Chaotropic salt contamination : A260/230

Amount of tomato leaf	Yield (µg)	Average of Yield (µg)	A260/280	Average of A260/280	A260/230	Average of A260/230
25 mg	6.3	5.3	2.03	2.02	1.55	1.54
	4.2		2.02		1.62	
50 mg	9.2	7.8	2.01	2.00	1.62	1.65
	6.2		2.00		1.66	
	8.0		1.99		1.66	

### Common protocol is usable for the following

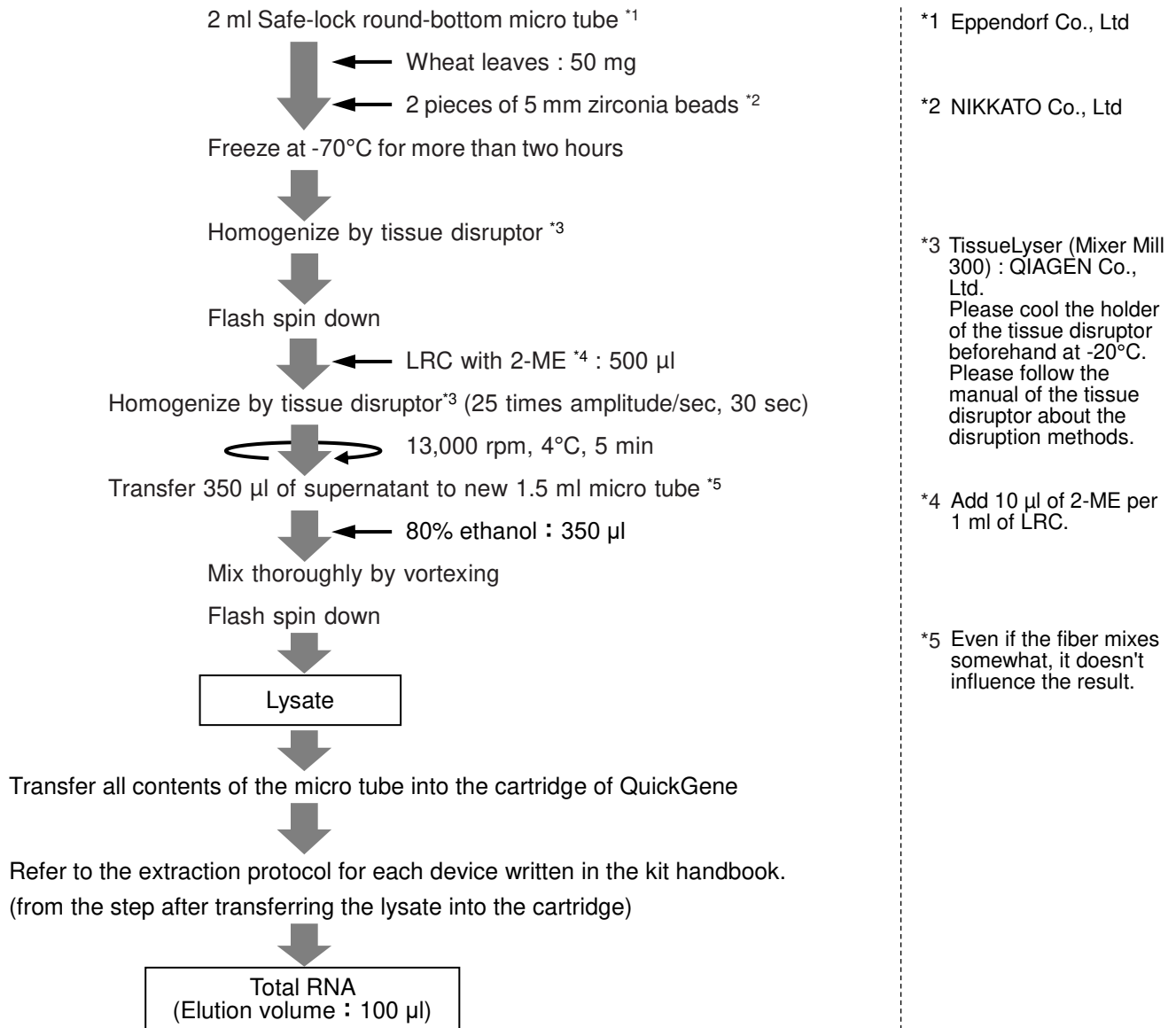
No Data

Depending on sample and storage conditions, nucleic acid may not be extractable.  
Therefore, we cannot guarantee accurate data.  
The extracted nucleic acid contains unintended acid (ex: when extracting DNA, RNA is also extracted).

RB-8

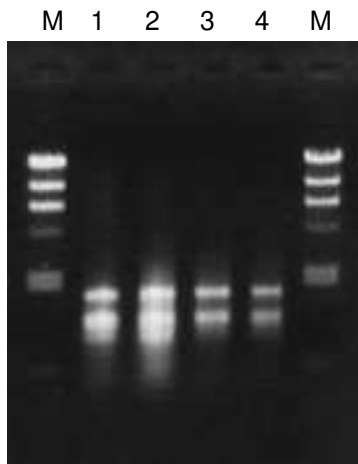
## Total RNA Extraction from Wheat Leaves

### Protocol



## Results

### Electropherogram



Electrophoresis condition 0.8% Agarose gel

TAE Buffer

2  $\mu$ l of sample / well

M :  $\lambda$ -Hind III (100 ng)

1 : Wheat leaves (*gramineae*)

2 : Barley leaves (*gramineae*)

3 : *Chenopodium quinoa* leaves (*Chenopodiaceae*)

4 : *Nicotiana benthamiana* leaves (*solanaceae*)

### The yield of Total RNA / Protein contamination : A260/280

Sample	Yield ( $\mu$ g)	A260/280
Wheat leaves	6.12	2.11

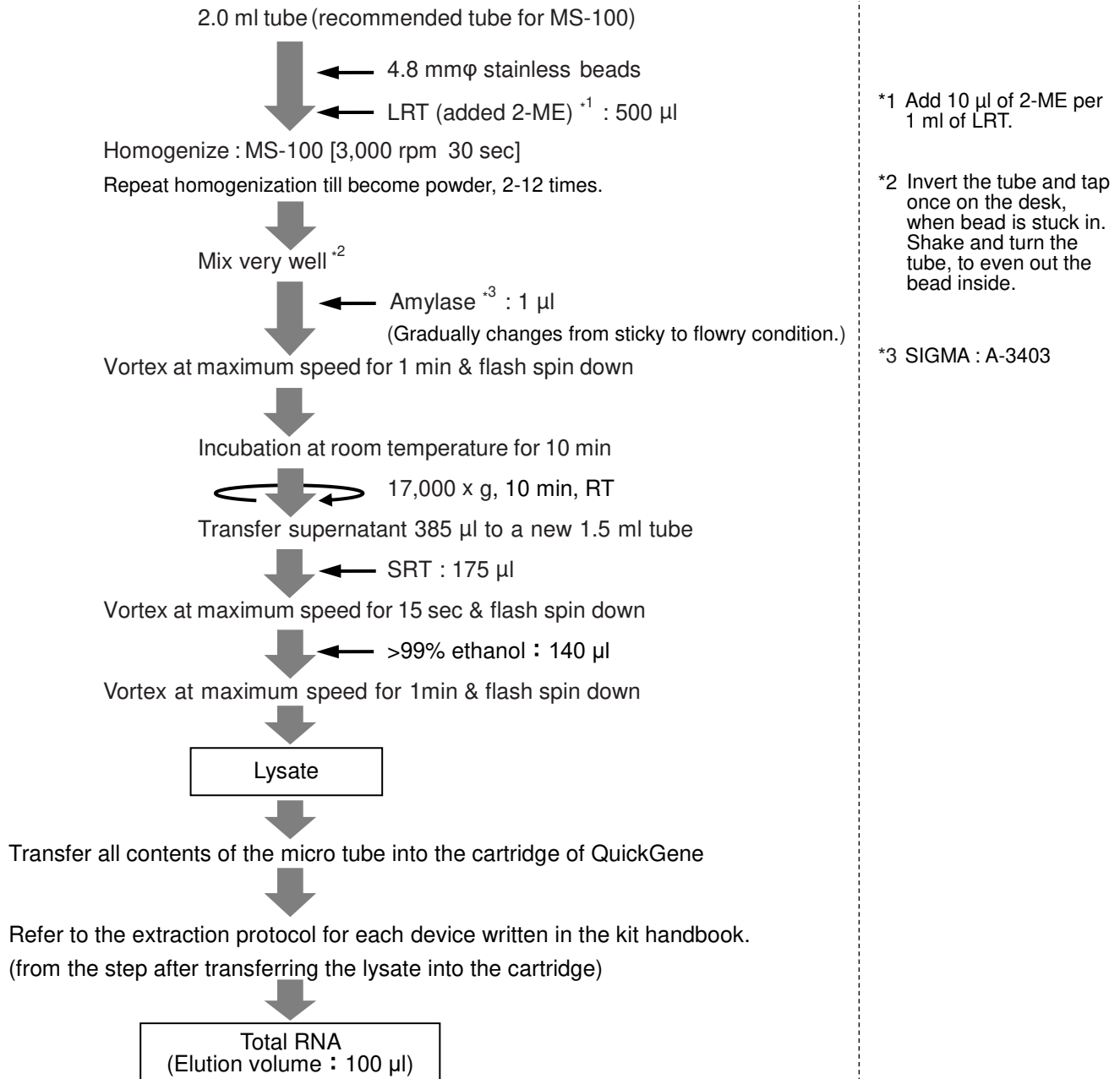
### Common protocol is usable for the following

*N. benthamiana* leaves, Barley leaves, *C. quinoa* leaves

RB-9

## Total RNA Isolation from Amaranthus seeds

### Protocol



### Results

No Data

### Common protocol is usable for the following

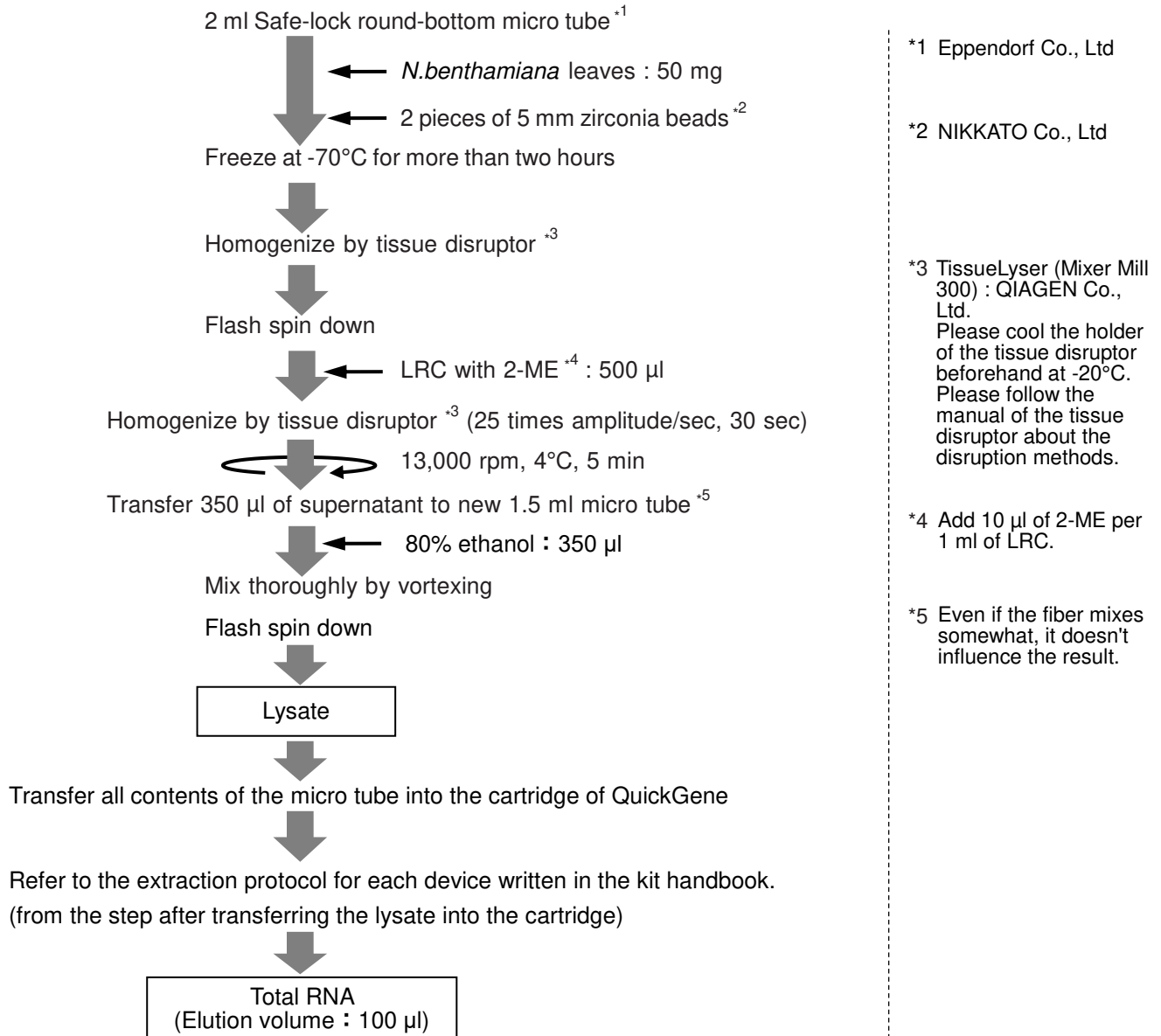
No Data

Depending on sample and storage conditions, nucleic acid may not be extractable.  
Therefore, we cannot guarantee accurate data.  
The extracted nucleic acid contains unintended acid (ex: when extracting DNA, RNA is also extracted).

RB-10

## Total RNA Isolation from *N. benthamiana* Leaves

### Protocol



\*1 Eppendorf Co., Ltd

\*2 NIKKATO Co., Ltd

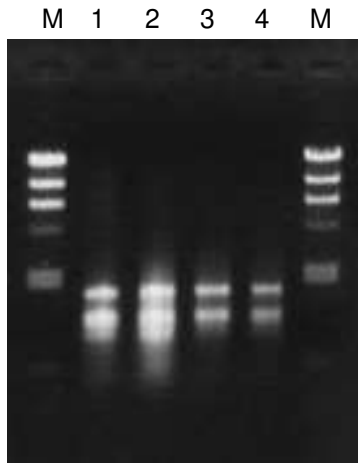
\*3 TissueLyser (Mixer Mill 300) : QIAGEN Co., Ltd.  
Please cool the holder of the tissue disruptor beforehand at -20°C. Please follow the manual of the tissue disruptor about the disruption methods.

\*4 Add 10 µl of 2-ME per 1 ml of LRC.

\*5 Even if the fiber mixes somewhat, it doesn't influence the result.

## Results

### Electropherogram



Electrophoresis condition 0.8% Agarose gel  
 TAE Buffer  
 2  $\mu$ l of sample / well  
 M :  $\lambda$ -Hind III (100 ng)  
 1 : Wheat leaves (*gramineae*)  
 2 : Barley leaves (*gramineae*)  
 3 : *Chenopodium quinoa* leaves (*Chenopodiaceae*)  
 4 : *Nicotiana benthamiana* leaves (*solanaceae*)

### The yield of Total RNA / Protein contamination : A260/280

Sample	Yield ( $\mu$ g)	A260/280
<i>N. benthamiana</i> leaves	2.64	1.95

### Common protocol is usable for the following

Barley leaves, *C. quinoa* leaves, Wheat leaves

Depending on sample and storage conditions, nucleic acid may not be extractable.  
Therefore, we cannot guarantee accurate data.  
The extracted nucleic acid contains unintended acid (ex: when extracting DNA, RNA is also extracted).