



QuickGene Series Application Guide

Genomic DNA Extraction from Plants

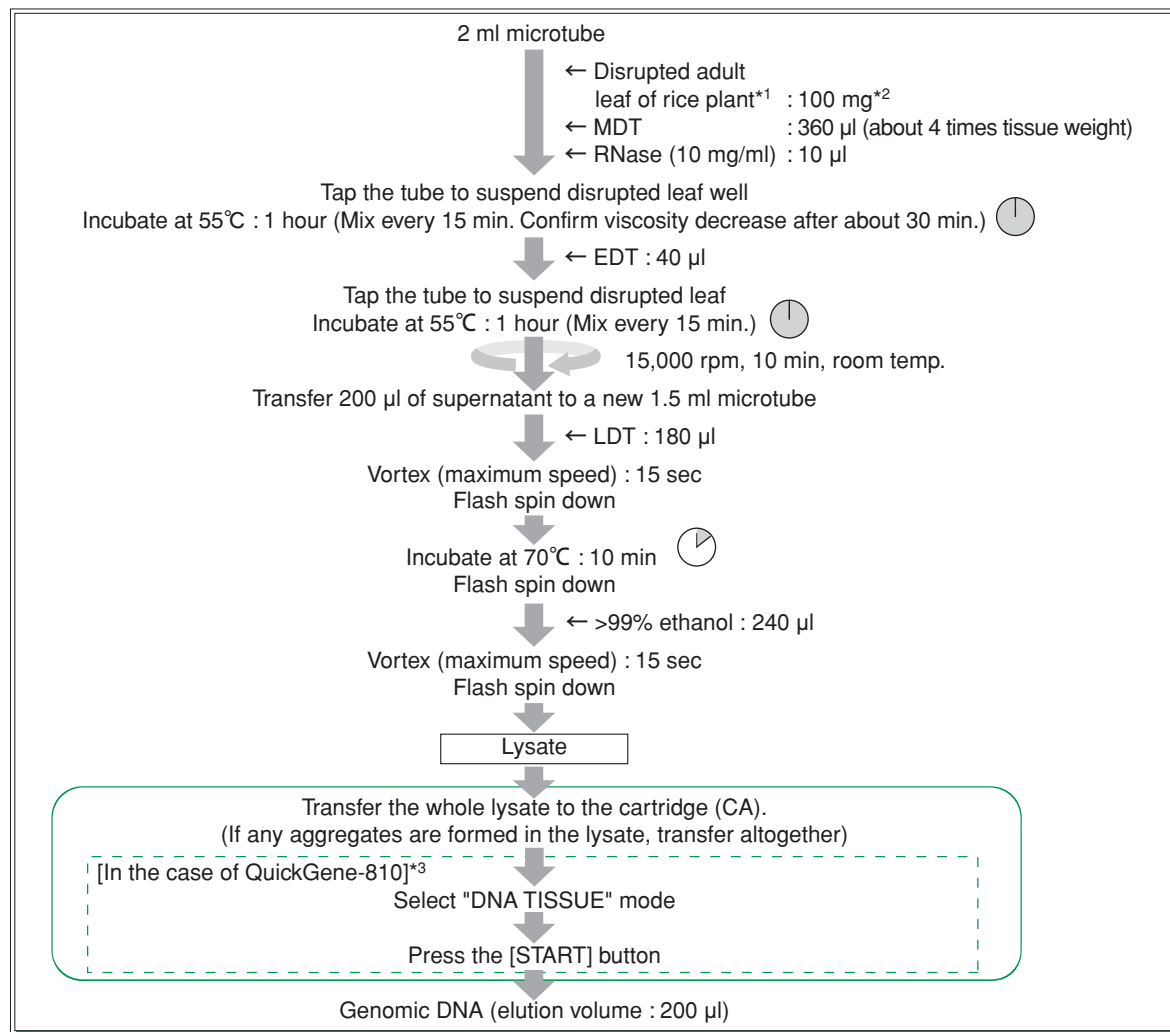
Kit : QuickGene DNA tissue kit S

Model : QuickGene-810 / QuickGene-Mini80

Summary

Enables easy and rapid extraction of genomic DNA from adult leaf of rice plant and spinach leaf.

● Protocol 1



*1 : Multibeadshocker (Yasui Kikai Corporation) was used for disruption.

*2 : Treatable quantity varies depending on plant types, tissues, growth conditions, etc.

When extracting the sample with this kit for the first time, a preliminary test is recommended.

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

* Perform extraction within 30 min after lysate preparation.

Results : Extraction of genomic DNA from adult leaf of rice plant

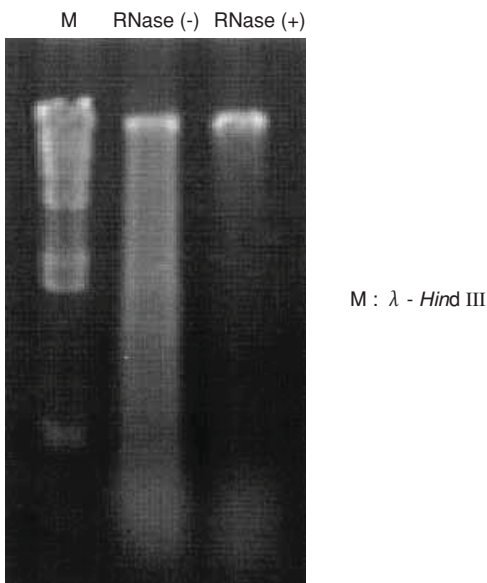
Genomic DNA was extracted from 100 mg of adult leaf of rice plant using QuickGene system (QuickGene and QuickGene DNA tissue kit S).

● Genomic DNA yield

	Yield
RNase (+)	10 μ g
RNase (-)	36 μ g

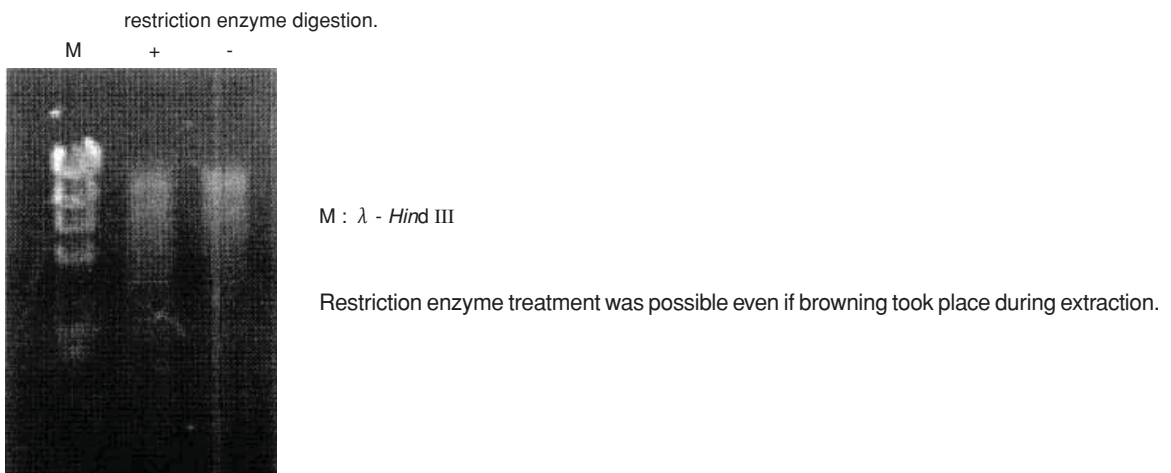
● Electrophoresis of genomic DNA

Agarose gel electrophoresis was performed with genomic DNA extracted from adult leaf of rice plant using QuickGene system.



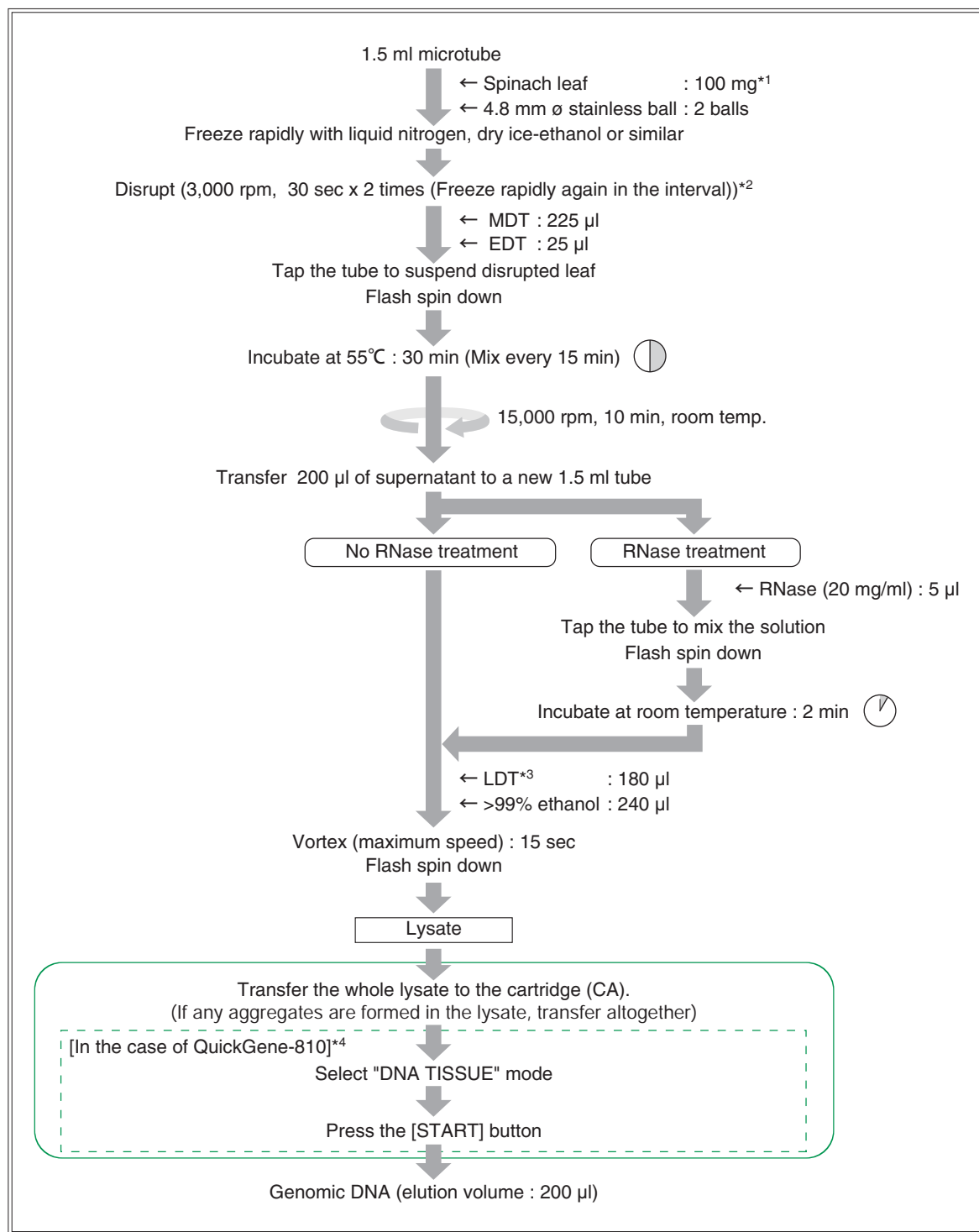
● Restriction Enzyme Digestion

Genomic DNA extracted from adult leaf of rice plant using QuickGene system was used for *Eco*RI restriction enzyme digestion.



(Contributed by Professor Yukimoto Iwasaki and Yukiko Fujisawa, Faculty of Biotechnology, Fukui Prefectural University)

● Protocol 2



*1 : Treatable quantity varies depending on plant types, tissues, growth conditions, etc.

When extracting the sample with this kit for the first time, a preliminary test is recommended.

*2 : MS-100 (Tomy Seiko Co.) was used for disruption.

*3 : If precipitate is generated after LDT addition, add >99% ethanol after dissolving precipitate by incubation at 70°C for several minutes.

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

* Perform extraction within 30 min after lysate preparation.

Results : Extraction of genomic DNA from spinach leaf

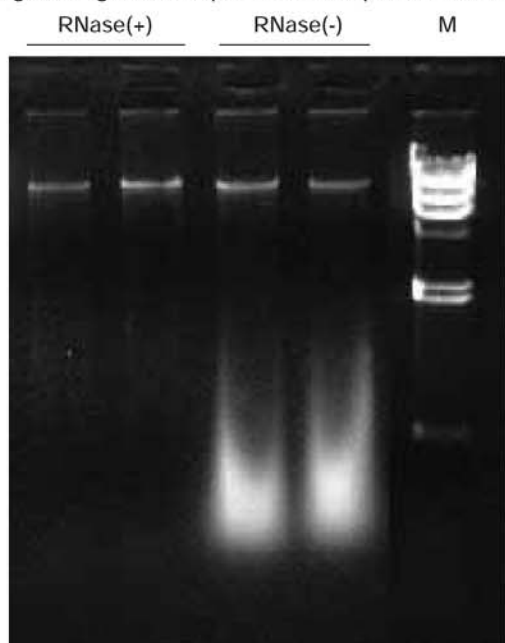
Genomic DNA was extracted from 100 mg of spinach leaf using QuickGene system (QuickGene and QuickGene DNA tissue kit S).

● The yield and purity of genomic DNA

	Yield	A260/280	A260/230
RNase (+)	3.6 µg	1.94	1.76
	4.0 µg	1.87	1.89
	2.8 µg	1.80	1.77
	6.9 µg	1.97	2.04
RNase (-)	39.6 µg	2.22	2.24
	14.8 µg	2.16	1.99
	44.8 µg	2.24	2.26
	52.0 µg	2.24	2.29

● Electrophoresis of genomic DNA

Agarose gel electrophoresis was performed with genomic DNA extracted from spinach leaf using QuickGene system.



Electrophoresis condition : 1% agarose / 1 x TAE

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