

Nucleic Acid Isolation Device
QuickGene-Mini80



Personal nucleic acid isolation device, one for

QuickGene-Mini80 is a compact system requiring no centrifugation in the extraction process, giving less strain to samples and enabling rapid nucleic acid extraction. DNA/RNA can be easily extracted from various samples including human/mouse/plants/cells/fungi and others. The QuickGene-Mini80 shares a common extraction mechanism and kits with our semi-automated nucleic acid isolation system, QuickGene-810. QuickGene-Mini80 offers high performance comparable to QuickGene-810 at a reasonable price.

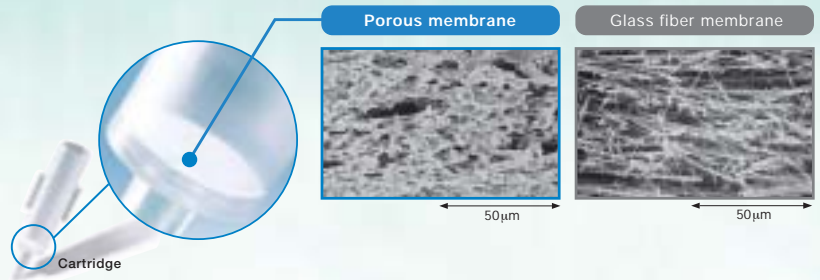
Compact Design

- The small, lightweight QuickGene-Mini80 takes up minimal space on the lab bench and is easy to carry.
- QuickGene-Mini80 can be operated on the lab bench so, without moving around, the user can perform nucleic acid extraction.



Revolutionary Porous Membrane

- The QuickGene-Mini80 uses FUJIFILM's patented porous membrane only 80µm thick.
- Because of the outstanding absorptive and desorptive performances of the membrane, high-purity nucleic acid can be easily obtained in high yield at low pressure.
- The ultra thin membrane enables nucleic acid extraction in shorter time than when compared to glass fiber membranes.

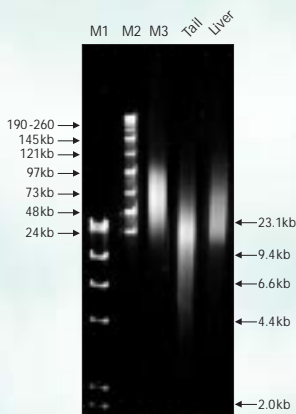


High Purity, High Yield

- Highly reproducible QuickGene-Mini80 can stably extract nucleic acid in high yield.
- The extracted DNA/RNA contains few impurities and can be used directly in PCR and RT-PCR.

Length of extracted DNA

QuickGene DNA tissue kit S

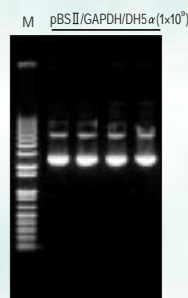


M1: λ Hind III digest
M2: MidRange PFG Marker II
M3: Mouse Genomic DNA(BD)

*Balb/c mouse (female, 7week old)

Extraction of plasmid DNA

QuickGene Plasmid kit S



M : 1kb PLUS DNA Ladder

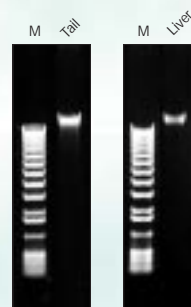
Yield and purity of plasmid DNA

	Average*
DNA yield(µg)	23.0
Purity(260/280)	1.97
Purity(260/230)	2.28

*Average of 4 samples

Extraction of DNA from tissue

QuickGene DNA tissue kit S



M : 1kb PLUS DNA Ladder

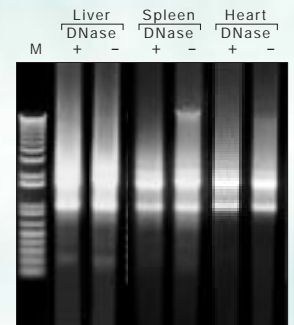
Yield and purity of genomic DNA

	Tail	Liver
DNA yield(µg)	4.0	3.6
Purity(260/280)	1.916	1.925
Purity(260/230)	2.117	1.942

*Balb/c mouse (female, 7week old)
*Without RNase treatment

Extraction of RNA from tissue

QuickGene RNA tissue kit SII



M : 1kb PLUS DNA Ladder

Yield and purity of total RNA

	DNase treatment	Liver 32mg	Spleen 32mg	Heart 32mg
total RNA yield(µg)	+	155.4	71.8	21.2
	-	159.3	74.3	21.6
Purity(280/260)	+	2.1	2.1	2.2
	-	2.1	2.1	2.2
Purity(280/230)	+	2.3	2.1	2.0
	-	2.2	2.1	1.8

*Balb/c mouse (female, 7week old)

each person

Easy & Rapid Processing

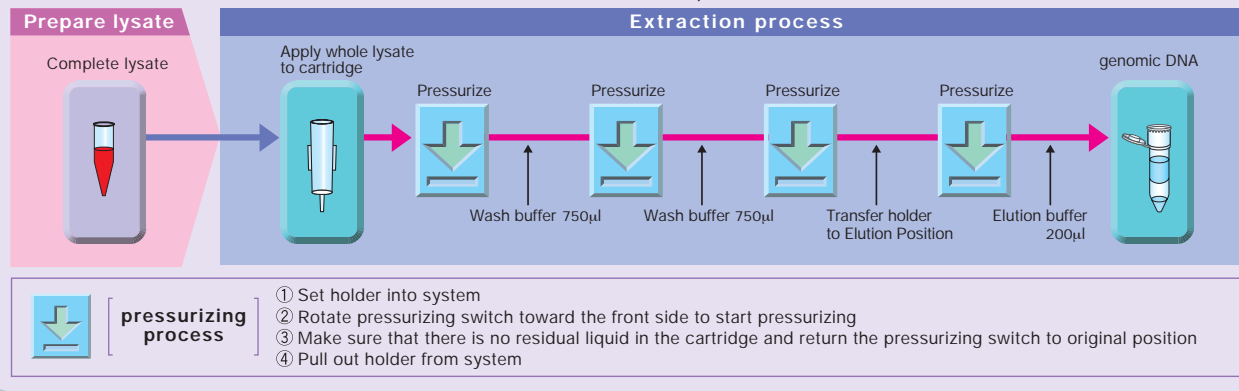
- The operation is simple. Just set the sample and rotate the blue pressurizing Rotary Switch on both sides of the system.
- Centrifugation is not required for the extraction. The operation is simple, and saves valuable time.

Easy and simple extraction operation



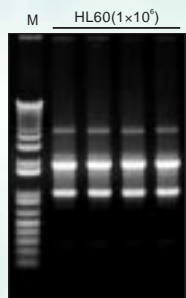
Workflow of extraction using DNA whole blood kit

DNA can be extracted from human whole blood in only 6 min.*
 *Represents the actual time required to perform the operation according to our protocols.



Extraction of RNA from cultured cells

QuickGene RNA cultured cell kit S



M :1kbp PLUS DNA Ladder

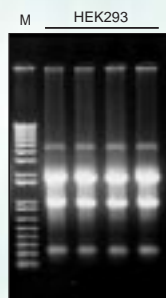
Yield and purity of total RNA

	DNase treatment	Average*
total RNA yield(µg)	+	12
	-	11.1
Purity(260/280)	+	2.14
	-	2.12
Purity(260/230)	+	2.17
	-	2.25

*Average of 4 samples

Extraction of RNA from cells cultured in 6 cm dish

QuickGene RNA cultured cell HC kit S



M :1kbp PLUS DNA Ladder

Yield and purity of total RNA

Cell type	HL60	HEK293*	HeLa	COS-7	NIH/3T3
Cell form	Pellet		6cm dish		
total RNA yield(µg)	45.6	110.5	46.9	43.0	34.4
Purity(260/280)	1.99	1.86	2.19	2.07	1.93
Purity(260/230)	2.01	1.98	1.98	1.96	1.91

*HEK293 is the average of 4 samples.

Extraction of RNA from blood cells

QuickGene RNA blood cell kit S



M :1kbp PLUS DNA Ladder

Yield and purity of total RNA

Leukocyte(1x10 ⁶)	DNase treatment	Average*
total RNA yield(µg)	+	4.7
	-	5.9
Purity(260/280)	+	2.30
	-	2.10
Purity(260/230)	+	1.29
	-	0.68

*Average of 2 samples

Easy extraction from various samples

Appropriate kit selectable depending on sample.

Extraction example	Purpose	Corresponding kits
Whole blood, buffy coat Human/ Cow, etc.: Whole blood (EDTA blood, heparin blood)	genomic DNA extraction for genetic test, genotyping	DNA whole blood kit
Tissue Mouse/ Rat: Tail, Sperm, Liver Materials, manufactured goods Wheat/ Red bean/ Pleurotaceae/ Shimeji mushroom, etc.	DNA extraction for genome analysis of samples ranging from mouse/ rat to food	DNA tissue kit
Plasmid <i>E. coli</i>	Miniprep for plasmid	Plasmid kit
Tissue Mouse/ Rat: Liver, Kidney, Brain, Spleen, Lung, Heart, Thymus	total RNA extraction for expression analysis such as real-time PCR and RT-PCR	RNA tissue kit II
Cultured cell Adherent/ Non-adherent (HeLa, HL60, etc.) Tissue Dicotyledonous plant (leaf)/ Tobacco (leaf), Plants	total RNA extraction for expression analysis such as real-time PCR and RT-PCR	RNA cultured cell kit
Cultured cell Cultured cell on 6cm/ 10cm dish	High-yield total RNA extraction for northern blotting and microarray	RNA cultured cell HC kit
Blood cell Leukocytes separated by ammonium chloride Erythrocytes of whole blood or Ficoll fraction	High-purity total RNA extraction for expression profiling or various applications	RNA blood cell kit

*This chart shows extraction examples. Protocol may vary depending on samples and sample conditions.

The specific set of isolation kits supports various samples

QuickGene Isolation kits are optimized for the QuickGene system to extract DNA and RNA in the shortest time and with the highest quality. Appropriate kit selectable depending on sample.

Isolation kits	Extraction example
QuickGene DNA whole blood kit S [for 96 samples] Reference code DB-S	ca.5 μ g / Whole blood 200 μ l
QuickGene DNA tissue kit S [for 96 samples] Reference code DT-S	ca.4 μ g / 5mg Balb/c Mouse tail
QuickGene Plasmid kit S [for 96 samples] Reference code PL-S	ca.2.5 μ g / 1ml culture DH5 α
QuickGene RNA tissue kit SII [for 96 samples] Reference code RT-S2	ca.100 μ g / 30mg Mouse liver
QuickGene RNA cultured cell kit S [for 96 samples] Reference code RC-S	ca.10 μ g / 1 \times 10 ⁶ cell HL60 cell
QuickGene RNA cultured cell HC kit S [for 96 samples] Reference code RC-S2	90~150 μ g / 10cm dish cultured HEK293 cell
QuickGene RNA blood cell kit S [for 96 samples] Reference code RB-S	ca.4.5 μ g / 1 \times 10 ⁷ cell Leukocytes

*The isolation kits used in QuickGene-Mini80 are also used for QuickGene-810.

Specifications

Overview

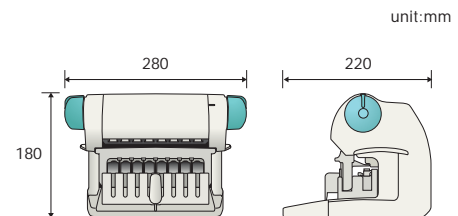
- Throughput : 1 to 8 samples per run

Physical specifications

- Dimensions : 280(W) \times 220(D) \times 180(H)mm
- Weight : Approx. 3 kg

Operating conditions

- Supply voltage : AC ~100-240V
- Power supply frequency : 50 / 60Hz
- Operating conditions : Temperature: 15~30°C
Humidity: 30~80%(non-condensing)



Application Guides Available on our website. <http://lifescience.fujifilm.com>

FUJIFILM

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