

Nucleic Acid Isolation System
QuickGene-810

NEW



DNA and RNA extraction with a revolutionary 80µm membrane film

QuickGene-810 rapidly isolates DNA/RNA from varied samples
with high quality and high yield.

An automated system with isolation kits for reliable results.



Compact
Design

Small and self-contained
QuickGene-810 takes up
minimal space on the lab bench.



Easy
and
Reliable

Intelligent QuickGene-810
handles samples automatically
and extracts DNA or RNA.



Rapid
Processing

FUJIFILM's patented porous
membrane makes it possible
to extract DNA from eight
sets of whole blood samples
simultaneously in only six minutes.



Sample
Preparation
Kits

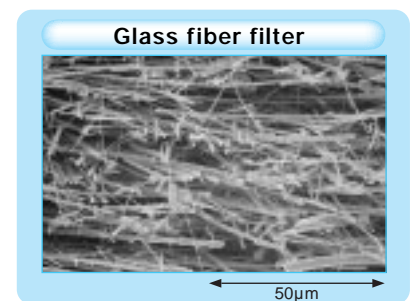
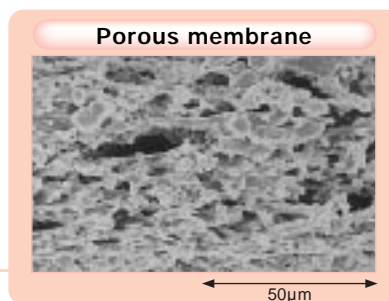
FUJIFILM provides several
kits for extracting DNA from
whole blood and tissue samples
and RNA from cultured cells
and tissue samples.



FUJIFILM's revolutionary porous membrane (Scanning electron microscope photos)



Cartridge



The system uses a porous, highly adsorptive membrane developed through application of FUJIFILM's advanced polymer membrane production technology. It is only 80µm thick, making it incomparably thinner than conventional glass fibers. QuickGene-810's ultra thin membrane alleviates the risk of contamination from residue in the membrane.

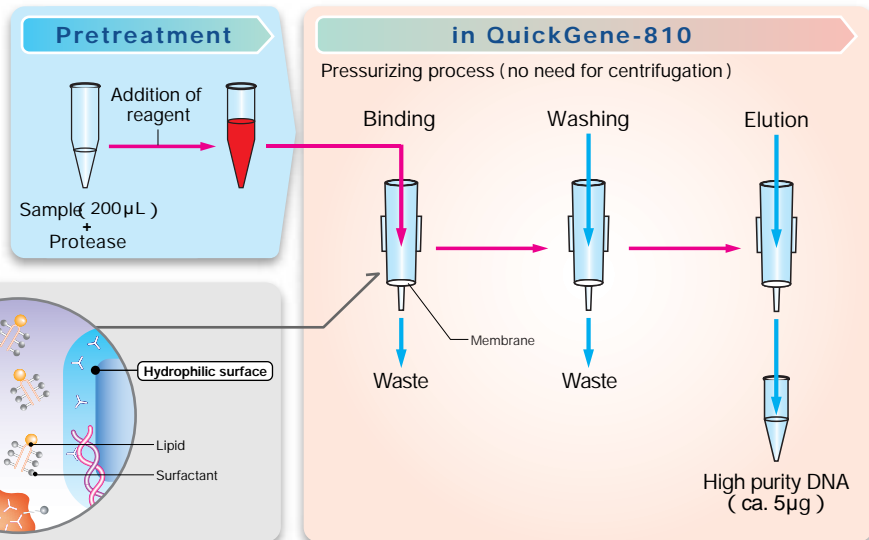
Easy RNA extraction

Problematic RNA extraction can also be fully automated with QuickGene-810. RNA is much more unstable than DNA, and ribonuclease in the atmosphere or from the operator during the extraction process has sometimes resulted in its degradation. But there is no risk at all of contamination when you use QuickGene-810 because the extraction process occurs automatically in a sealed, enclosed space.

High purity and high yield without centrifugation

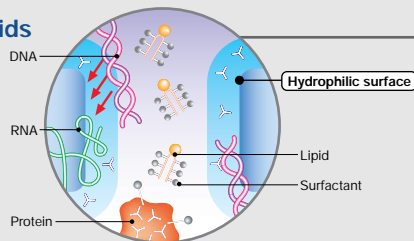
Three pressurizing stages – binding, washing and elution – occur automatically in the unit. Because of the outstanding adsorptive and desorptive properties of the membrane, high-purity nucleic acid can be obtained easily at low pressure without any complex processes such as centrifugation.

Isolation of DNA from whole blood



Adsorption of nucleic acids

Owing to their hydrophilic properties, nucleic acids get adsorbed onto the membrane, while proteins and lipids, which are comparatively hydrophobic, tend to seep out of the membrane.



Processing time

DNA WHOLE BLOOD mode

6 min / 8 samples

DNA TISSUE mode

13 min / 8 samples

PLASMID mode

6 min / 8 samples

RNA CELL mode

13 min / 8 samples

RNA TISSUE mode

13 min / 8 samples

High purity

There are almost no impurities in extracted genomic DNA and total RNA. The absence of impurities such as proteins and chaotropic salts means that the isolated products can be used directly in PCR and RT-PCR.

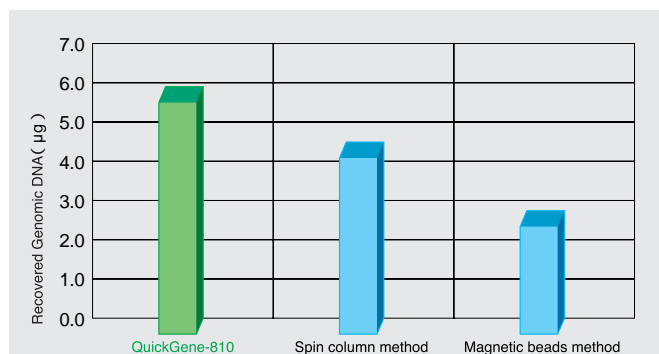
	Purity
DNA	$A_{260/280} > 1.7$
RNA	$A_{260/280} > 1.8$

High yield

High yields of genomic DNA can be extracted from whole blood and total RNA from cultured cells without any need to use hazardous organic solvents.

DNA extraction yield compared with competitors

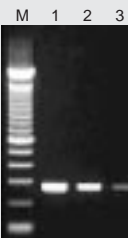
Yield of genomic DNA extracted from 200µL of whole blood (average of ten specimens)



PCR of isolated DNA

PCR performed with genomic DNA isolated from 200µL of whole blood while targeting p53 exon6.

M:100bp ladder
1:Genomic DNA 10ng/µL
2:Genomic DNA 1ng/µL
3:Genomic DNA 0.1ng/µL



RT-PCR of isolated RNA

RT-PCR performed with total RNA isolated from HL60 cells of 1×10^6 while targeting β -actin mRNA.

M:100bp ladder
1:total RNA 100pg/µL
2:total RNA 10pg/µL



Simple operation and automated processes reduce risk of contamination

There is no need to set complex isolation conditions. Automation ensures that extraction does not fail because of contamination.



The specific set of isolation kits supports various samples

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

Isolation kits

	DNA whole blood kit (for 96 samples)	DNA tissue kit (for 96 samples)	Plasmid kit (for 96 samples)	RNA cultured cell kit (for 96 samples)	RNA tissue kit (for 96 samples)
	QuickGene DNA whole blood kit S Reference code DB-S	QuickGene DNA tissue kit S Reference code DT-S	QuickGene Plasmid kit S Reference code PL-S	QuickGene RNA cultured cell kit S Reference code RC-S	QuickGene RNA tissue kit S Reference code RT-S
Pretreatment enzyme				-	-
Tissue lysis buffer	-		-	-	-
Lysis buffer					
Solubilization buffer	-	-	-	-	-
Resuspension buffer	-	-		-	-
Alkaline solution	-	-		-	-
Neutralization buffer	-	-		-	-
Wash buffer					
Elution buffer					
Cartridges					
Collection tubes					
Caps					
Waste tubes					
Extraction example	ca. 5 µg / Whole blood 200µL	ca. 4 µg / 5mg Mouse tail	ca. 2.5µg / 1mL Culture DH5	ca. 10 µg / 1×10 ⁶ HL60 cell	ca. 20µg / 15mg Mouse liver

Specifications of QuickGene-810

Overview

Automated stages : Sample binding, washing and elution
Throughput : 1 to 8 samples per run
Display : LCD (16 characters × 1 line)

Operating conditions

Supply voltage : 100V-240V
Power supply frequency : 50/60Hz
Operating conditions : Temperature : 15-30
Humidity : 30-80% (non-condensing)
Power consumption : 65W

Isolation modes

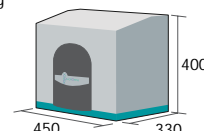
DNA WHOLE BLOOD
RNA CELL
RNA CELL PLUS
DNA TISSUE
RNA TISSUE
RNA TISSUE PLUS
PLASMID

Isolation kits

QuickGene DNA whole blood kit S (for 96 samples)
QuickGene DNA tissue kit S (for 96 samples)
QuickGene Plasmid kit S (for 96 samples)
QuickGene RNA cultured cell kit S (for 96 samples)
QuickGene RNA tissue kit S (for 96 samples)

Physical specifications

Dimensions : 450 (W) × 330 (D) × 400 (H) mm
Weight : 21kg



*Research use only



Fuji Photo Film Co., Ltd. 26-30, Nishiazabu 2-Chome, Minato-ku, Tokyo 106-8620, Japan, Tel:+81-3-3406-2201, Fax:+81-3-3406-2158 • E-mail: sginfo@fujifilm.co.jp

Fuji Photo Film (Europe) GmbH, Heesenstr. 31, 40549 Dusseldorf, Germany, Tel:+49-211-5089-174, Fax:+49-211-5089-139 • E-mail: lifescience@fujifilmeurope.de

Fuji Photo Film (U.K.) Ltd. Unit 12 St Martins Way, St Martins Business Centre, Bedford, MK42 0LF, U.K., Tel:+44-1234-245291, Fax:+44-1234-245293 • E-mail: lifesciences@fujifilm.co.uk

Fuji Photo Film (China) Investment Co., Ltd. 31st floor, Hong Kong New World Tower, No.300 Huai Hai Zhong Road, Shanghai, P.R China, Tel:+86-21-3302-4655 ext.363, Fax:+86-21-6384-3322 • E-mail: wgxiang@fujifilm.com.cn

<http://lifescience.fujifilm.com>

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