

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.



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



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



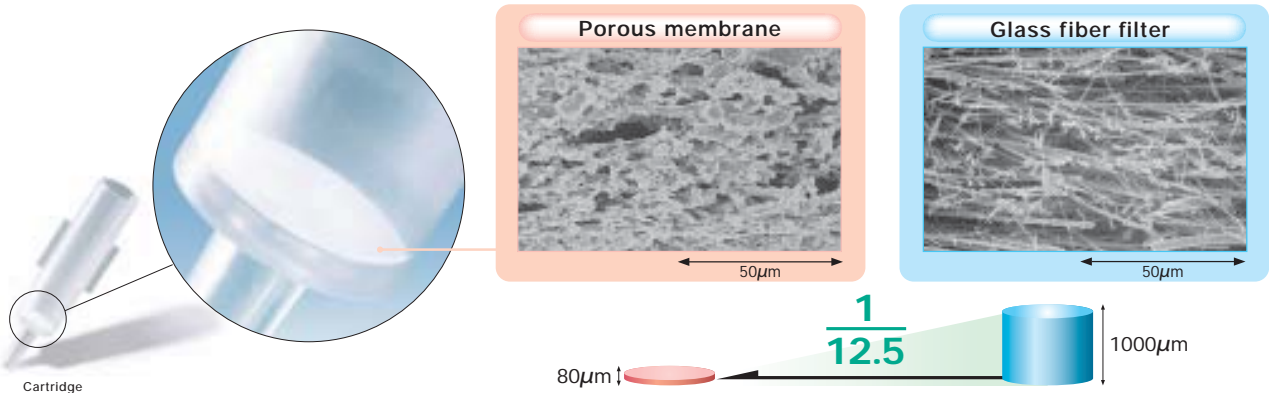
FUJIFILM's patented porous membrane makes it possible to extract DNA from eight sets of whole blood samples simultaneously in only six minutes.



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)



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.

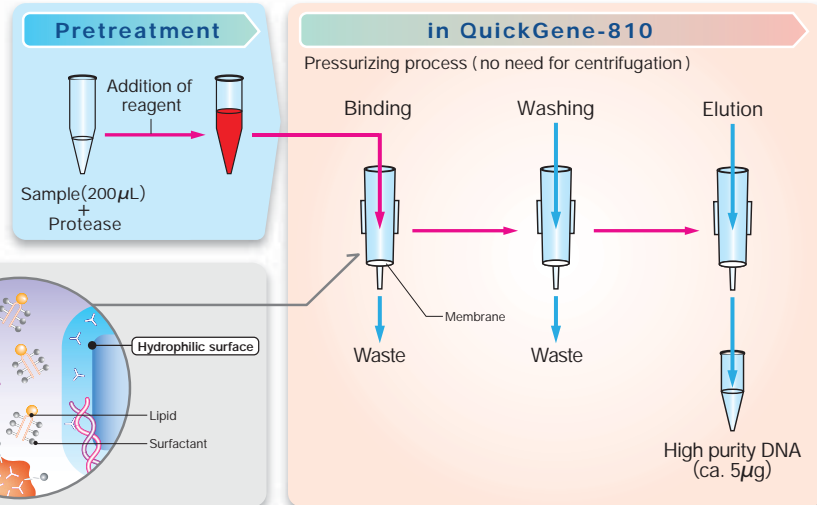
Easy RNA extraction

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

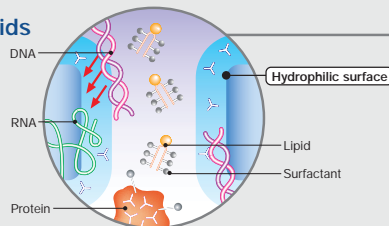
Three pressurizing stages – binding, washing and elution – occur automatically in the unit. Because of the outstanding adsorptive and desorptive properties of the membrane, high-purity nucleic acid can be obtained easily at low pressure without any complex processes such as centrifugation.

■ 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

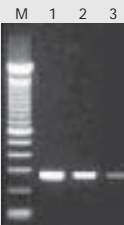
There are almost no impurities in extracted genomic DNA and total RNA. The absence of impurities such as proteins and chaotropic salts means that the isolated products can be used directly in PCR and RT-PCR.

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

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

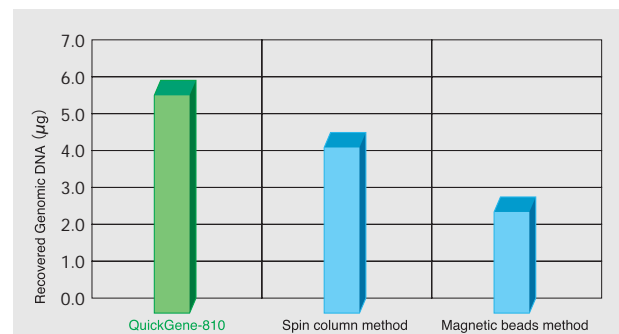


High yield

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)



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 μ g / Whole blood 200 μ L	ca. 4 μ g / 5mg Mouse tail	ca. 2.5 μ g / 1mL Culture DH5 α	ca. 10 μ g / 1 \times 10 ⁶ HL60 cell	ca. 20 μ g / 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 \times 1 line)

Operating conditions

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

Isolation modes

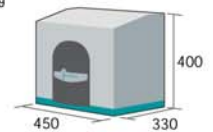
- DNA WHOLE BLOOD
- RNA CELL
- RNA CELL PLUS
- DNA TISSUE
- RNA TISSUE
- RNA TISSUE PLUS
- PLASMID

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) \times 330 (D) \times 400 (H)mm
- Weight : 21kg



*Research use only

FUJIFILM



North American Distributor

www.autogen.com

AutoGen, Inc. 84 October Hill Road Holliston, MA 01746

Tel: 508.429.5965; Fax: 508.429.9765; E-mail: info@autogen.com

