

Nucleic Acid Isolation System
QuickGene-810



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.

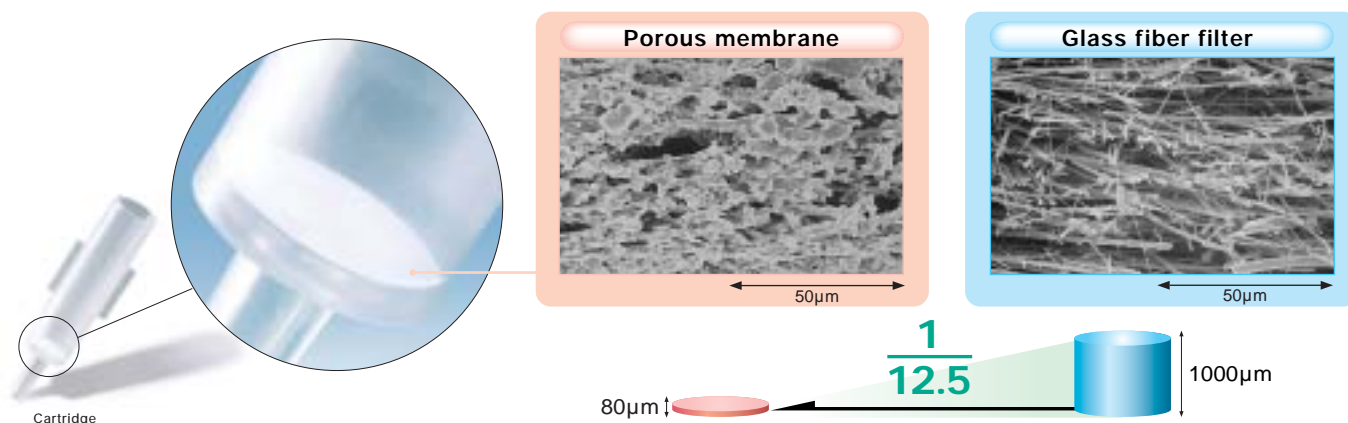


Sample
Isolation
Kits

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



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.

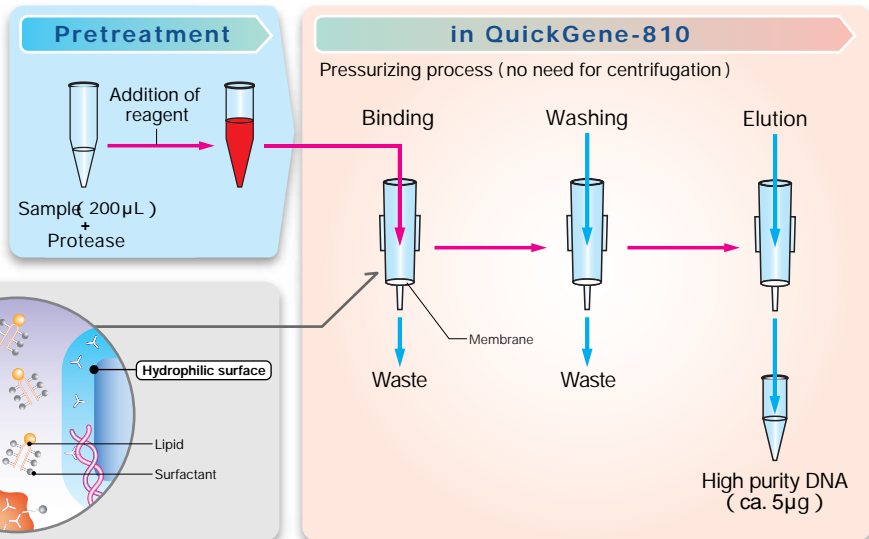
Easy RNA extraction

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

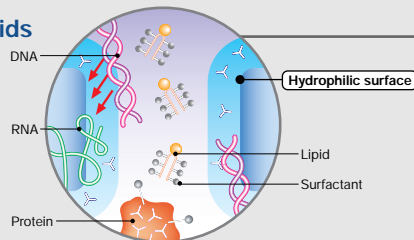
Three pressurizing stages – binding, washing and elution – occur automatically in the unit. Because of the outstanding adsorptive and desorptive properties of the membrane, high-purity nucleic acid can be obtained easily at low pressure without any complex processes such as centrifugation.

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 (8 samples)

DNA Isolation	
SAMPLE	TIME
WHOLE BLOOD	6 min
TISSUE	13 min

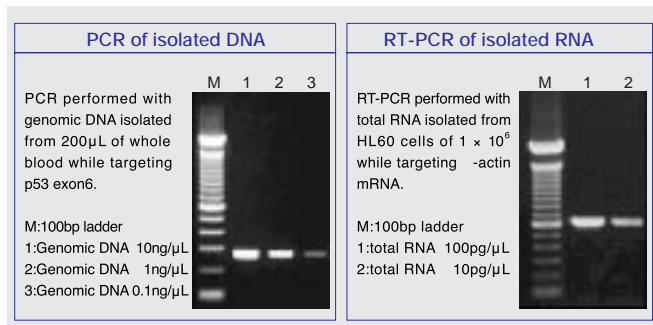
PLASMID DNA Isolation	
SAMPLE	TIME
PLASMID	6 min

RNA Isolation	
SAMPLE	TIME
TISSUE	15 min
CULTURED CELL (adherent / floating)	13 min
CULTURED CELL (6/10cm dish)	16 min
BLOOD CELL	20 min

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	$A_{260/280} > 1.8$

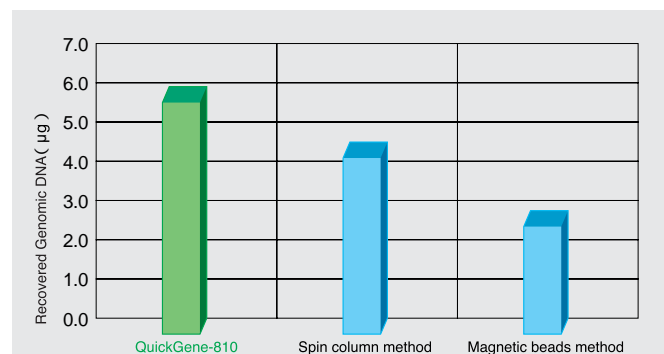


High yield

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.

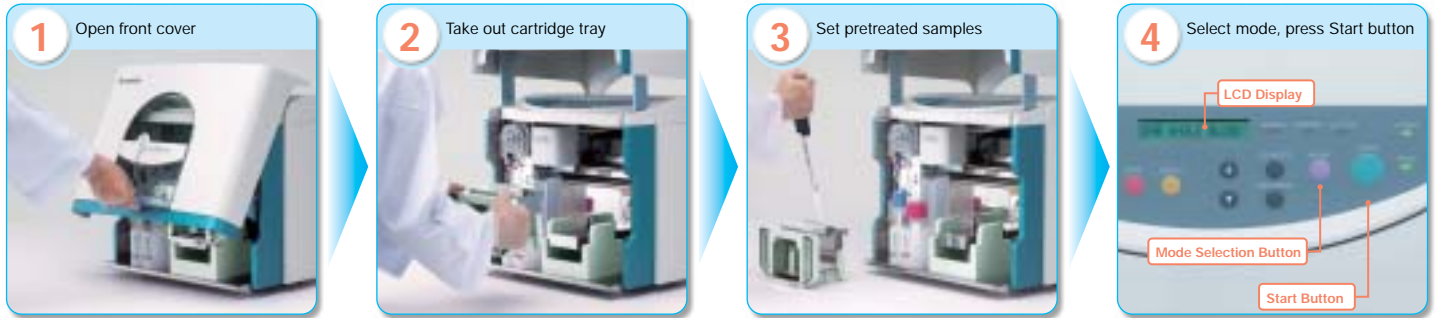
DNA extraction yield compared with competitors

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



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

Specifications

Overview

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

*Research use only

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

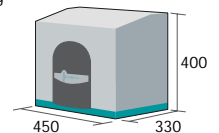
DNA WHOLE BLOOD
 DNA TISSUE
 PLASMID
 RNA TISSUE
 RNA TISSUE PLUS
 RNA CELL
 RNA CELL PLUS
 RNA BLOOD

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 tissue kit S (for 96 samples)
 QuickGene RNA cultured cell kit S (for 96 samples)
 QuickGene RNA cultured cell HC kit S (for 96 samples)
 QuickGene RNA blood cell kit S (for 96 samples)

Physical specifications

Dimensions : 450(w) × 330(D) × 400(h) mm
 Weight : 21kg



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