



Magratron System 12GC Plus

Automated Nucleic Acid Isolation and Purification System

QUICK MANUAL

~ Genomic DNA Purification Whole Blood ~



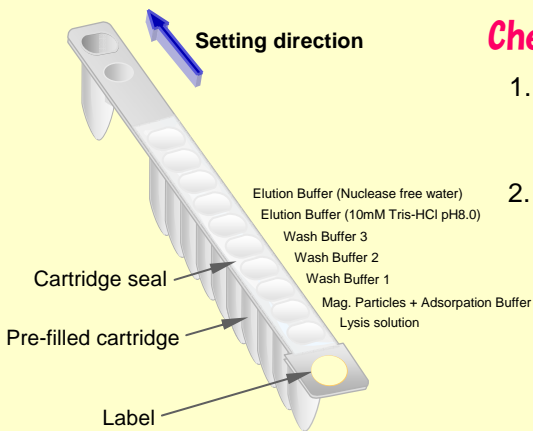
Operation Time

DNA Extraction: Approx. 30 min



Reagents (GC series Genomic DNA whole blood kit-100 : Code No. E1014)

IC Card (Genomic DNA whole blood : Code No. I-1510)



Check!!

1. When bubbles are seen in the reagent cartridge, remove them by tapping the cartridge. Bubbles in the cartridge may disrupt complete aspiration, and may produce more bubbles by mixing.
2. When the droplets of reagent are presented on the seal or on the side wall of well, remove them by shaking gently. In case of finding magnetic particles on the side wall, Tilt the cartridge and agitate it gently to remove particles from the wall before loading.

Store this reagent at room temperature (15-25°C).

Avoid high temperature, high humidity, and vibration.

Preserve this reagent with the aluminum seal up.



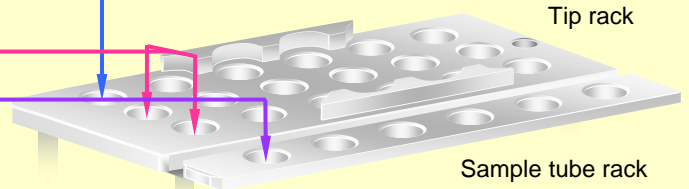
Preparation of Sample and Supplies

Whole blood 100µl
screwed-cap tube (1.5 ml)

Tip with Tip holder (× 2)



New screwed-cap tube (1.5ml)



Tip rack

Sample tube rack

Setting direction

Reagent cartridge rack

Reagent cartridge

- * Place the tip in the Tip holder in Tip rack before setting on this machine.
- * Please use the recommended screwed-cap tube.
- * Follow the setting direction. Insert the Reagent cartridge in the Reagent cartridge rack until it sounds "click".



Start of Processing

Check if the IC card is set.

Turn on the power of Magration System 12GC Plus.

Starting menu is displayed on LCD automatically.
And push "START" Key.

"Run" mode (the protocol name in IC card is displayed, and then initialized the instrument automatically)

Select an entry of bar-code information with bar-code reader.

Please refer to "GC Data Station Quick Manual" when you use the bar-code reader.

Input Batch Info?
Yes = RETURN
Skip = START
Prev. = ESC

START

Switching to sample information screen.

Push Key

Select Elution Buffer.

Tris-HCl (pH8.0) Push Key

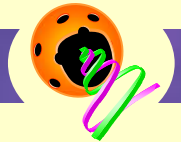
Distilled water Push Key

Push Key

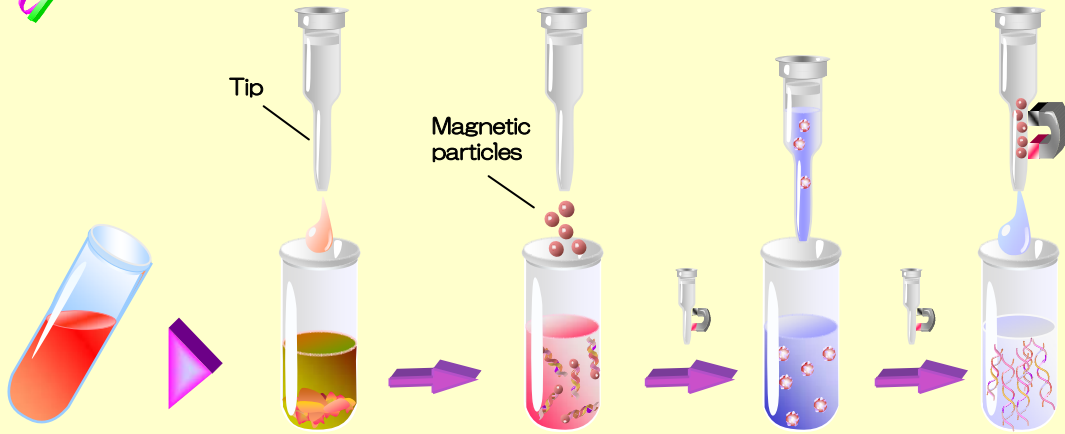
RUN

* It "Beeps" after completion of RUN.

NOTE: Do Not insert and remove the IC card, while the power is on.



Extraction Process - Genomic DNA-



Whole Blood

Cell Lysis

DNA Binds on Magnetic Particles

Wash (X3)

DNA Elution

: Magnetic separation of magnetic particles



Troubleshooting

Symptoms	Cause	Comment
Low yield	Sample condition	Check if temperature or place stored were adequate, or the run was performed after it became to room temperature. Try another run with new samples.
Inadequate PCR result	Too long target size	The average length of extracted DNA is about 50kb and gives no problem for general PCR process. But too long target sized DNA may not be amplified adequately.
	Others	pH condition in PCR process may affect the result. If this suspected, use sterilized water as elution buffer. For storage purpose for long term, use Tris-HCl as elution buffer.