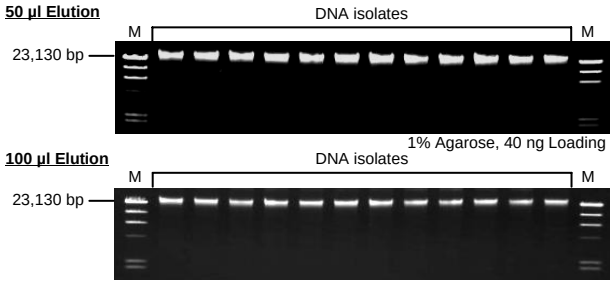
Fully Automated Magtration System 12GC for Genomic DNA Purification from Whole Blood

●Performance of genomic DNA purification from whole blood

Table 1. Materials and Reagents

Reagent	MagDEA DNA 200 Blood (GC) (Code No. E7001)
Protocol	MagDEA DNA 200 Blood 12GC ver.1.0 (Code No. I7201)
Sample	human whole blood treated with EDTA-2Na
Sample Volume	200 µl
Elution Volume	50 µl / 100 µl
Operation Time	Approx. 35 min.



Lane M : λ *Hind* Ⅲdigest Marker (TAKARA BIO INC., Cat. No. 3404)
Samples treated at same time

Figure 1.
Agarose gel electrophoresis of purified genomic DNA from whole blood by Magtration System 12GC

Table 2. Yield and Purity (n=12)

Sample	Elution Vol. (µl)	Yield (µg)	A_{260}/A_{280}
human whole blood treated with EDTA-2Na	50	5.46 ± 0.45	2.03 ±0.04
	100	6.17 ± 0.24	2.00 ± 0.04

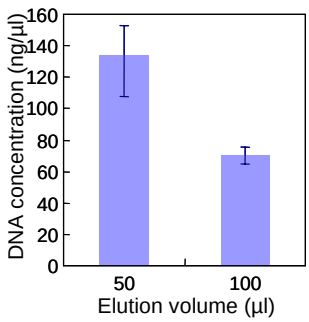
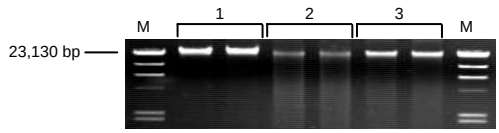


Figure 2.
Typical concentration from different elution volume

● Performance of genomic DNA purification from whole blood with the different types of anticoagulant

Table 3. Material

Sample	human whole blood treated with EDTA-2Na, Heparin, ACD
Elution Volume	100 µl



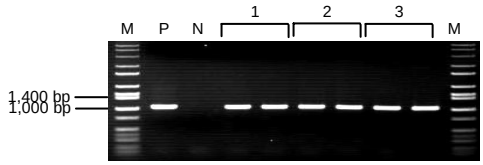
Lane M : λ *Hind* Ⅲdigest Marker (TAKARA BIO INC. Cat. No. 3404)
Lane 1 : DNA from EDTA treated whole blood
Lane 2 : DNA from Heparin treated whole blood
Lane 3 : DNA from ACD treated whole blood

Figure 2.
Agarose gel electrophoresis of purified DNA from whole blood with the different types of anticoagulant

●PCR amplification using DNA purified from whole blood by Magtration System 12GC

Table 4. Condition of PCR amplification

		PCR Cycle
Template	50 ng	Preheat 94℃, 5 min.
Primer Target	Benzodiaze pine (BZD) receptor (located on GABA receptor) 1038 bp	Repeat: 94℃, 20 sec. → 57℃, 30 sec. → 72℃, 1 min. (30 cycles)
Enzyme	TaKaRa Ex Taq	Extension 72℃, 10 min.



Lane M : Wide-Range DNA Ladder Marker (TAKARA BIO INC. Cat. No. 3415A)
Lane P : Positive control
Lane N : Negative control
Lane 1 : DNA from EDTA treated whole blood
Lane 2 : DNA from Heparin treated whole blood
Lane 3 : DNA from ACD treated whole blood

Figure3.
Agarose gel electrophoresis of purified DNA from whole blood with the different types of anticoagulant

Advantages

The Magtration System 12GC would be the most reliable genomic DNA purification system in the current market.

The Magtration System 12GC enables to proceed in a short time in a small footprint on a lab-bench.

The genomic DNA purified by Magtration System 12GC is sufficient yield and purity to use in downstream studies directly, such as PCR and restriction enzyme digestion.

The Magtration System 12GC is true walk-away automation system.

[Call center for product or technology]

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