

# Fully Automated Magtration System 8Lx for Genomic DNA Purification from Whole Blood

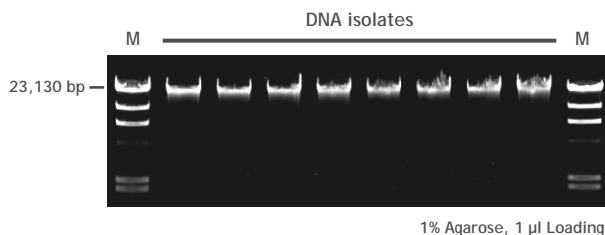
## ● Performance of genomic DNA purification from whole blood

Table 1 Materials and Reagents

Reagent	MagDEA DNA 7000 Whole Blood (8Lx) (Code No. E7002)
Protocol	MagDEA DNA 7000 Whole Blood ver. 1.2
Sample	Human whole blood treated with EDTA-2Na
Sample Volume	7000 $\mu$ l
Elution Volume	1000 $\mu$ l
Operation Time	Approx. 65 min.

Table 2 Yield and Purity (n=8)

Sample	Yield ( $\mu$ g)	$A_{260}/A_{280}$
Human whole blood treated with EDTA-2Na	181.4 $\pm$ 6.3	1.95 $\pm$ 0.01



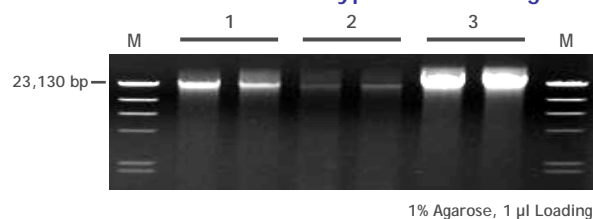
Lane M :  $\lambda$  Hind III digest Marker  
(TAKARA BIO INC., Cat. No. 3404)  
Samples treated at same time

Figure 1.  
Agarose gel electrophoresis of purified genomic DNA from whole blood by Magtration System 8Lx

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

Table 3 Material

Sample	Anticoagulant
human whole blood	EDTA-2Na
	Heparin
	Acid Citrate Dextrose



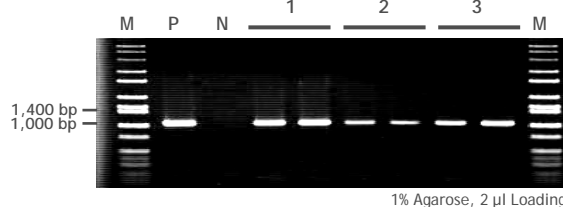
Lane M :  $\lambda$  Hind III digest Marker (TAKARA BIO INC. Cat. No. 3404)  
Lane 1 : DNA from EDTA treated whole blood  
Lane 2 : DNA from Heparin treated whole blood  
Lane 3 : DNA from ACD treated whole blood

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 8Lx

Table 4 Condition of PCR amplification

Template	50 ng	PCR Cycle
Primer Target	Benzodiazepine (BZD) receptor (located on GABA receptor) 1038 bp	Pre-heat 94°C, 5min Repeat $\left\{ \begin{array}{l} 94^\circ\text{C}, 20\text{sec} \\ 57^\circ\text{C}, 30\text{sec} \\ 72^\circ\text{C}, 1\text{min} \end{array} \right\}$ 30 cycles Extension 72°C, 10min
Enzyme	TaKaRa Ex Taq	



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

Figure 3.  
Agarose gel electrophoresis of purified DNA from whole blood with the different types of anticoagulant

### Advantages

The Magtration System 8Lx would be one of the most reliable genomic DNA purification system for large volume sample in the current market.  
The genomic DNA purified by Magtration System 8Lx is sufficient yield and purity to use in downstream studies directly, such as PCR and restriction enzyme digestion.  
The Magtration System 8Lx is true walk-away automation system.