



TBG Diagnostics Limited

EZbead Nucleic Acid AutoExtraction System

Quality and Consistency that you can trust

Easy and high throughput purification of nucleic acid



▶ EZbead System-16



▶ EZbead System-32

Benchtop Size

- ▶ Compact size with large sample capacity
- ▶ Built in control interface

Economical

- ▶ Best value for an automated nucleic acid extraction system
- ▶ One machine for a diverse range of extraction kits

Stable Automation



- ▶ One step automated extraction
- ▶ Consistent results

Total Control for Maximum Flexibility

- ▶ Fully programmable protocols
- ▶ Freedom to use any reagent you choose in the non-prefilled tray



Specifications

Name	EZbead System-16	EZbead System-32
		
Maximum Sample per Run:	16	32
Display/Control Unit	Built in LCD display	Built in touch panel
Protocols	Pre-programmed protocols	Programmable protocols.
External PC Connection	NEED external connection and additional software to edit protocols	NO NEED for external computer connection to edit protocols
UV Sterilization Lamp	Not available	Standard
Heated Elution Function	Not available	Standard
Operation Status Alarm	Indicates end of run and operational errors	
Extraction Chamber Heating	Optional (For use in colder environments)	
Operation time per Run:	30~70 minutes per run	
Consumables:	96 deep well plate, disposal mixing bar	
Maximum Deep Well capacity:	1000 μ L	
Machine Weight:	16.5 kg	27.2 kg
Machine Dimensions: (LxWxH)	35 cm x38 cm x30 cm	40 cm x40 cm x45 cm
Power source:	100~240 V / 60 Hz	

DNA yield from various sample types

Sample Type	Sample Size	Yield
Whole Blood	100 μ L	2~5 μ g
Culture Cells	10 ⁶ cells	10~20 μ g
Animal Tissue	10 mg	20~40 μ g
Plant leaf	25 mg	5~15 μ g

RNA yield from various sample types

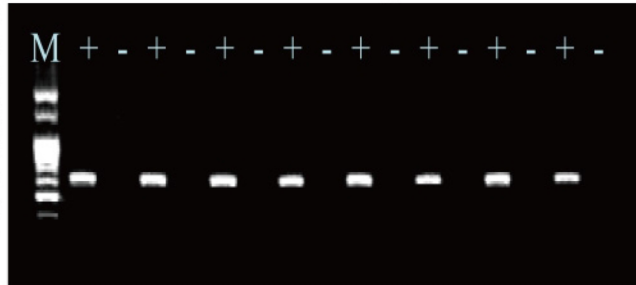
Sample Type	Sample Size	Yield
Whole Blood	2 mL	3~6 μ g
Culture Cells	10 ⁶ cells	10~20 μ g
Animal Tissue	10 mg	20~40 μ g
Plant leaf	25 mg	5~15 μ g

Note: Additional DNase treatment is needed for removing gDNA from eluen



No cross contamination between extraction samples

Gel picture legend: 8 Blank controls and 8 DNA samples are placed next to each other in an alternating pattern within the deep well plate. The eluents are then used to perform PCR test and the amplicons are loaded onto an agarose gel in the same pattern. The results from the gel picture clearly show an absence of cross contamination. EZbead Systems can eliminate sample crosscontamination by regulating mixing speed and performing periodic UV sterilization. In addition, The deep well plates are also designed for efficient mixing without spilling into neighboring wells.



Highly consistent between sample extractions

The same DNA sample was extracted sixteen times and subjected to quantification analysis. They all yielded of similar concentrations as shown below. The EZbead system operates in a dependable and predictable fashion that will maximize consistency between sample runs.

Well No.	Concentration (ng/μL)	Well No.	Concentration (ng/μL)
1	340	9	328
2	330	10	320
3	348	11	336
4	348	12	340
5	344	13	324
6	342	14	318
7	334	15	312
8	326	16	320
Average	332	CV(%)	3.4

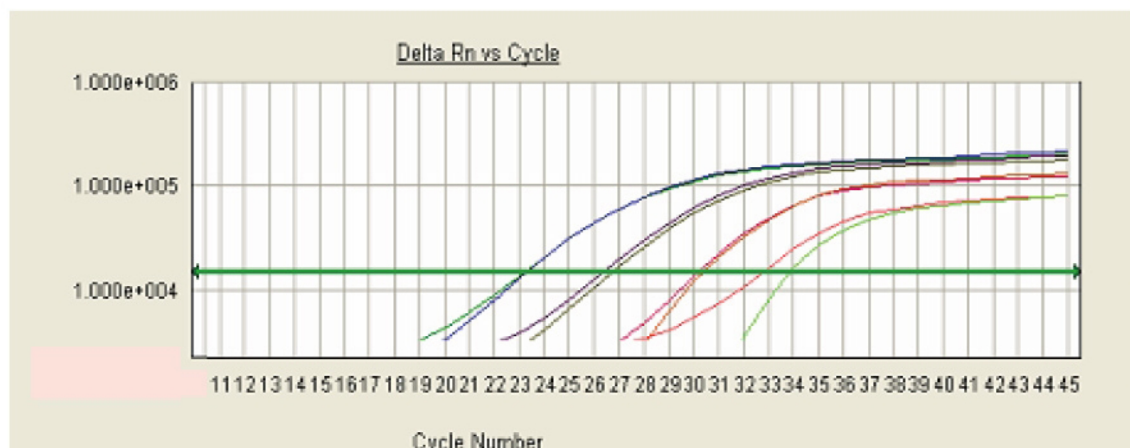


High quality extracted DNA for HLA typing

HLA typing by sequence specific primer (SSP) method is one of the most complicated PCR based diagnostic kits to date for organ transplantation. It requires DNA amplification with multiple primers pairs under the same PCR condition. The quality of the DNA extraction system is critical for successful HLA typing results. DNA extracted from the EZbead system is clearly capable of producing excellent HLA typing results as shown on the left.



High quality extracted RNA for pathogen detection



RNA extracted using EZbead Virus RNA extraction kit is suitable for subsequent quantitative PCR. The qPCR analysis was performed with HCV RNA extracted from 100 µl serum of different quantities of viral loads ranging from 10² to 10⁵. As shown above, the data shows a good correlation between viral load and Ct value. This will allow accurate quantification of viral RNA concentration when proper internal control is included.

HCV Qn (IU)		10 ⁵	10 ⁴	10 ³	10 ²
Ct	Test 1	23.22	26.36	30.18	32.76
	Test 2	23.25	26.75	30.38	33.88

EZbead Extraction Kit

Catalog No.	Extraction Kit with Bottled Reagents	Description	Package
37100	EZbead Blood DNA Extraction Kit	Whole blood DNA extraction	96 preps
37200	EZbead Blood RNA Extraction Kit	Whole Blood RNA extraction	48 preps
37300	EZbead Plant DNA Extraction Kit	Plant DNA extraction	96 preps
37400	EZbead Plant RNA Extraction Kit	Plant RNA extraction	96 preps
37500	EZbead Tissue DNA Extraction Kit	Tissue, Cell or bacteria DNA extraction	96 preps
37600	EZbead Tissue RNA Extraction Kit	Tissue, Cell or bacteria RNA extraction	96 preps
37700	EZbead Virus DNA Extraction Kit	Viral DNA extraction	96 preps
37800	EZbead Virus RNA Extraction Kit	Viral RNA extraction	96 preps

Catalog No.	Extraction Kits with Reagent Filled Deep Well Trays	Description	Package
37100a	EZbead Blood DNA Extraction Kit, pre-filled	Whole blood DNA extraction	96 preps
37200a	EZbead Blood RNA Extraction Kit, pre-filled	Whole Blood RNA extraction	48 preps
37300a	EZbead Plant DNA Extraction Kit, pre-filled	Plant DNA extraction	96 preps
37400a	EZbead Plant RNA Extraction Kit, pre-filled	Plant RNA extraction	96 preps
37500a	EZbead Tissue DNA Extraction Kit, pre-filled	Tissue, Cell or bacteria DNA extraction	96 preps
37600a	EZbead Tissue RNA Extraction Kit, pre-filled	Tissue, Cell or bacteria RNA extraction	96 preps
37700a	EZbead Virus DNA Extraction Kit, pre-filled	Viral DNA extraction	96 preps
37800a	EZbead Virus RNA Extraction Kit, pre-filled	Viral RNA extraction	96 preps



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