20200115 | Ver.6 (EN)

ExiPrep™16 Plus

Fully Automated
Nucleic Acid Extraction System



BIONEER
Innovation • Value • Discovery

Bioneer Corporation is Korea's leading biotech company.
Bioneer is the first Korean biotechnology company when it was established in 1992.

Why *ExiPrep*™16 Plus?

- ☑ Walk-away automation
- ☑ Extract up to maximum of 16 samples simultaneously
- ☑ Purify DNA/RNA samples in 60 minutes
- ☑ Increased productivity, reproducibility, and reliability



Convenient Touchscreen

The 3.5" touchscreen offers an intuitive interface for operation such as selecting protocols and controlling the UV sterilization lamp

Pre-programmed Protocols

The pre-programmed protocols are optimized for the target nucleic acid and clinical samples. There are up to 990 unique protocols, allowing to set up optimal extraction conditions and outstanding reproducibility.

Automatic UV-lamp Sterilization

The UV sterilization lamp can be set to sterilize the instrument chamber before and after the extraction, eliminating inter-assay cross-contamination.

Proprietary Silica Magnetic Beads

The silica magnetic beads in our extraction kits were specially designed to maximize DNA/RNA binding efficiency, maximizing the recovery efficiency.

Built-in Contamination Shield

Sits beneath the pipette tips when the *ExiPrep*™16 Plus is moving across the plate, eliminating the possibility of intra-assay cross-contamination.

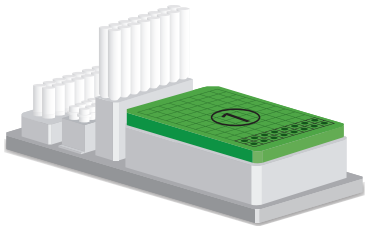
Built-in Heating & Magnetic Block

The *ExiPrep*™16 Plus includes dual-purpose heating/magnetic blocks. While heating increases sample lysis efficiency, maximizing extraction yield and purity, the magnetic block allows the beads to bind with greater affinity without well-to-well movement, increasing bead concentration and binding surface area to maximize nucleic acid recovery.

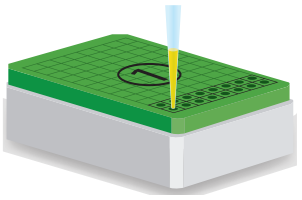
Workflow



Prepare Clinical or Research Samples



Set-up the Consumable



Add the Sample

Experimental Data

Genomic DNA from cultured mammalian cell (HeLa)

- Sample volume: 1X10^6 cells
- Protocol number: 109
- Total prep time: about 1 hr 30 min
- Average yield: 4-8 μg

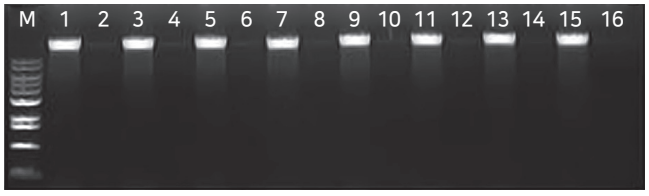


Figure 1. Lanes 1, 3, 5, 7, 9, 11, 13, 15 were extracted with 1X10^6 cells of cultured HeLa cell and lanes 2, 4, 6, 8, 10, 12, 14, 16 were extracted with ddH_2O as a negative control in DNA extraction. Note that all the samples have similar yields. Purity was also tested and was consistently between 1.8 and 2.0 (not shown).

Genomic DNA from tissue (bovine skeletal muscle)

- Sample volume: ~ 25 mg
- Protocol number: 102
- Total prep time: about 1 hr 30 min
- Average yield: up to 20 μg

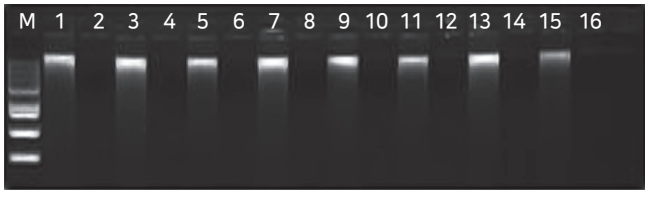


Figure 3. Lanes 1, 3, 5, 7, 9, 11, 13, 15 were extracted with 25 mg of bovine tissues and lanes 2, 4, 6, 8, 10, 12, 14, 16 were extracted with ddH_2O as a negative control in DNA extraction. Note that all the samples have similar yields. Purity was also tested and was consistently between 1.9 and 2.0 (not shown).

Genomic DNA from bacteria (*E.coli*)

- Sample volume: 1X10^9 cells
- Protocol number: 109
- Total prep time: about 1 hr 40 min
- Average yield: 8-12 μg

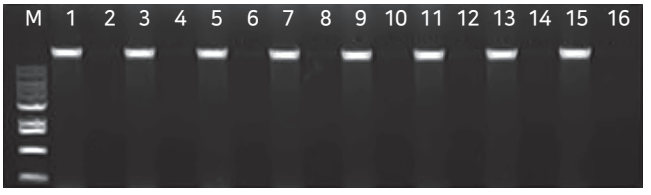


Figure 2. Lanes 1, 3, 5, 7, 9, 11, 13, 15 were extracted with 1X10^9 cells of *E.coli* cells and lanes 2, 4, 6, 8, 10, 12, 14, 16 were extracted with ddH_2O as a negative control in DNA extraction. Note that all the samples have similar yields. Purity was also tested and was consistently between 1.9 and 2.0 (not shown).

Genomic DNA from plant tissue (spinach leaf)

- Sample volume: ~ 100 mg
- Protocol number: 104
- Total prep time: about 1 hr
- Average yield: up to 5 μg

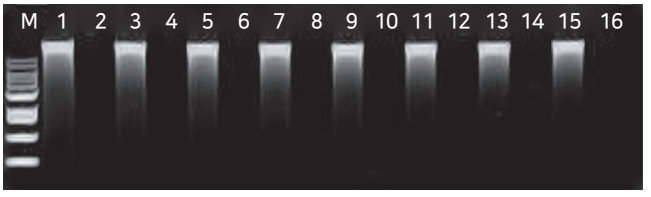
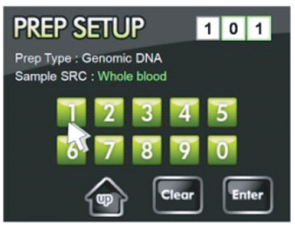
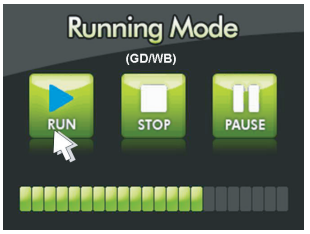


Figure 4. Lanes 1, 3, 5, 7, 9, 11, 13, 15 were extracted with 100 mg of spinach leaves and lanes 2, 4, 6, 8, 10, 12, 14, 16 were extracted with ddH_2O as a negative control in DNA extraction. Note that all the samples have similar yields. Purity was also tested and was consistently between 1.9 and 2.0 (not shown).

Easy-to-Use, Easy-to install: Automated DNA/RNA Extraction



Select the Extraction Protocol



Run the Instrument



Complete

RNA extraction using *ExiPrep*™ Plus Total RNA Kit

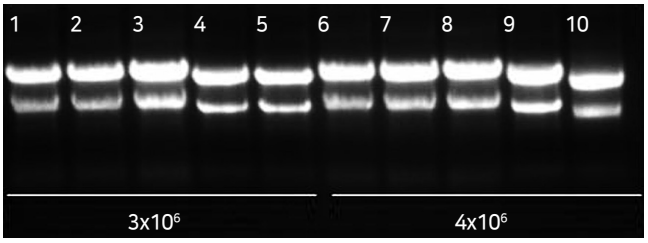


Figure 1. Comparison of Total RNA extracted from HeLa cell (~ 4 x 10^6) using *ExiPrep*™ Plus Total RNA Kit (Bioneer, automatic) and a competitor's kit (Competitor Q, manual/single column). DNase was not treated.

1-3: Bioneer *ExiPrep*™ Plus Total RNA Kit, mean yield; 38.6 µg, mean urity; 2.06
4-5: Competitor Q Total RNA Extraction Kit, mean yield; 39.7 µg, mean purity; 2.05
6-8: Bioneer *ExiPrep*™ Plus Total RNA Kit, mean yield; 46.1 µg, mean urity; 2.03
9-10: Competitor Q Total RNA Extraction Kit, mean yield; 49.7 µg, mean purity; 2.06

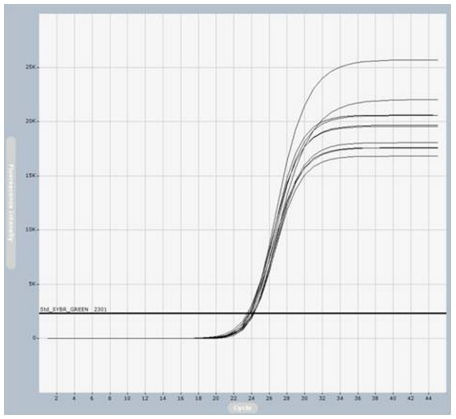


Figure 3. Comparison of real-time RT-PCR data of RNA from Kidney (10 mg) using *ExiPrep*™ Plus Total RNA Kit (Bioneer, automatic) and a competitor's kit (Competitor Q, manual/single column). DNase was treated.

Bioneer *ExiPrep*™ Plus Total RNA Kit, mean Ct; 23.92
Competitor Q Total RNA Extraction Kit, mean Ct; 24.01

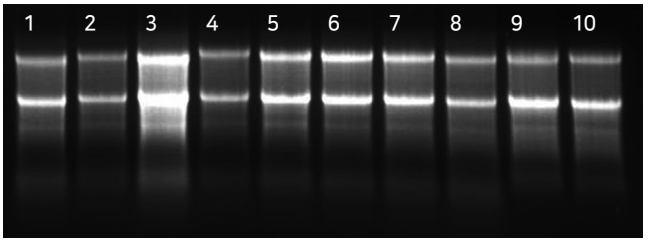


Figure 2. Comparison of Total RNA extracted from Kidney (10 mg) using *ExiPrep*™ Plus Total RNA Kit (Bioneer, automatic) and a competitor's kit (Competitor Q, manual/single column). DNase was treated.

1-8: Bioneer *ExiPrep*™ Plus Total RNA Kit, mean yield; 26.7 µg, mean urity; 2.06
9-10: Competitor Q Total RNA Extraction Kit, mean yield; 24.7 µg, mean purity; 2.05

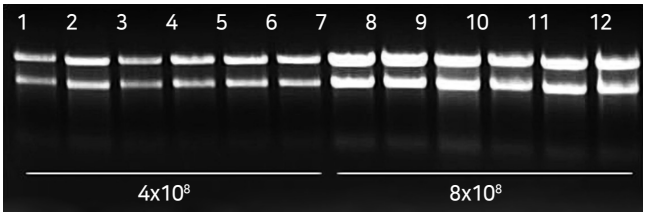
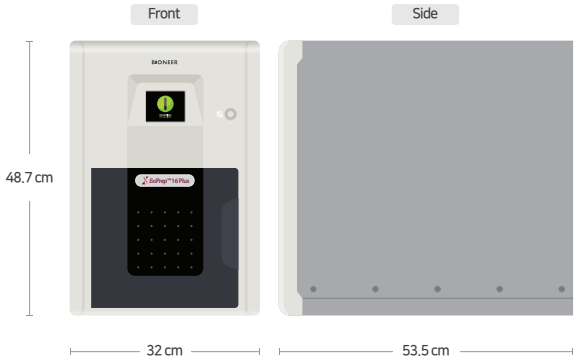


Figure 4. Comparison of Total RNA extracted from *E. coli* (~ 8 x 10^8) using *ExiPrep*™ Plus Total RNA Kit (Bioneer, automatic) and *MagListo*™ 5M Tissue Total RNA Extraction Kit (Bioneer, manual/magnetic bead). DNase was not treated.

1-4: Bioneer *ExiPrep*™ Plus Total RNA Kit, mean yield; 25.5 µg, mean urity; 2.01
5-6: Bioneer *MagListo*™ 5M Tissue Total RNA Extraction Kit, mean yield; 25.1 µg, mean purity; 1.99
7-10: Bioneer *ExiPrep*™ Plus Total RNA Kit, mean yield; 46.4 µg, mean urity; 2.02
11-12: Bioneer *MagListo*™ 5M Tissue Total RNA Extraction Kit, mean yield; 51.8 µg, mean purity; 2.01

Specifications

Dimension (cm)	32 (W) x 53.5 (D) x 48.7 (H)
Weight	22 kg
Voltage / Frequency	100~240 VAC, 50/60 Hz
Heat Block	40~90 ℃
Temperature range	15~35 ℃
Humidity range	20 ~ 80%, no condensation
Operating system	Standalone
Communications	TCP/IP
User interface	320 x 240 touch screen graphic LCD
UV sterilization	15 minute cycle



Ordering Information

Cat. No.	Product Description	
A-5030	*ExiPrep*™16 Plus	
Cat. No.	**Related Kit Description**	**Sample Sources**
Genomic DNA		
K-3225	*ExiPrep*™ Tissue Genomic DNA Kit	Animal Tissue(bovine muscle, Rat tail tip), Cultured cells, Plant tissue
K-3200-CB	*ExiPrep*™ Beef Genomic DNA Kit	Bovine tissue
K-3200-CR	*ExiPrep*™ Rice Genomic DNA Kit	Rice, Bean, Dried leaf tissue
K-4211	*ExiPrep*™ Plus Blood Genomic DNA Kit	Whole blood
K-4214	*ExiPrep*™ Plus Bacteria Genomic DNA Kit	Urine, Swabs, Gram (-) bacteria (~1x10^9 cells) Gram (+) bacteria (~1x10^9 cells)
K-4215	*ExiPrep*™ Plus Plant Genomic DNA Kit	Plant tissue, seed (100 mg)
K-4217	*ExiPrep*™ Plus Seed Genomic DNA Kit	Plant seed, tissue, root
Total RNA		
K-4241	*ExiPrep*™ Plus Total RNA Kit	Animal tissue, cultured cell, Gram(+) bacteria Gram(-) bacteria
K-4244	*ExiPrep*™ Plus Plant Total RNA Kit	Plant tissue, seed (100 mg)
Viral DNA/RNA		
K-4271	*ExiPrep*™ Plus Viral DNA/RNA Kit	Serum & Plasma, Urine, CSF and cell free body fluid, Swabs

Application

- **For University and Corporate Laboratories:**
  Nucleic acid extraction from various samples
- **For Hospital/Clinic Laboratories:**
  Nucleic acid extraction from samples such as blood, tissue, sputum, etc. for various molecular diagnostic tests
- **For Food Companies:**
  Food sample preparation for GMO or contamination testing
- **For Military or Police:**
  Sample preparation for detecting various bacteria and/or virus used in bioterrorism or food poisoning
- **Public Health Offices:**
  Sample preparation for public health threats such as STDs and tuberculosis

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