

# BIONEER MDx Systems

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*ExiStation™ Series*

## FEATURES OF *ExiStation*<sup>™</sup> SYSTEM

### *ExiStation*<sup>™</sup>

- Able to handle 1 to 48 samples with combination of up to 3 *ExiPrep*<sup>™</sup>16 Dx and 1 *Exicycler*<sup>™</sup> 96
- Available simultaneous diagnosis of various diseases, for example HIV, STI and TB since each *ExiPrep*<sup>™</sup>16 Dx can be extract nucleic acid from different specimen at the same time.

### *ExiStation*<sup>™</sup> 48 / *ExiStation*<sup>™</sup> 48A




- Advantage when test some diseases using same type of specimen
- Nucleic acid extraction from 48 samples within an hour.
- Use primary tube directly : all automation such as decapping/capping of sample tube and sample transfer\*
- Input sample information automatically by using built-in barcoding system\*

\* Only apply to *ExiStation*<sup>™</sup> 48 A

### *ExiStation*<sup>™</sup> Manager software

- Control the entire *ExiStation*<sup>™</sup> System from sample preparation to data analysis
- Automatic analysis of different target results for individual samples with LIS connection

## CONFIGURATIONS

|                             | ExiStation™   | ExiStation™ 48  | ExiStation™ 48 A  |
|-----------------------------|---|---|---|
| Instrument                  | <div></div> <ul style="list-style-type: none"><li>○ ExiPrep™16 Dx (3)</li><li>○ Exicycler™ 96 (1)</li><li>○ ExiSpin™ (1)</li><li>○ Notebook PC (1)</li></ul> | <div></div> <ul style="list-style-type: none"><li>○ ExiPrep™48 Dx (1)</li><li>○ Exicycler™ 96 (1)</li><li>○ ExiSpin™ (2)</li></ul> | <div></div> <ul style="list-style-type: none"><li>○ ExiLT (1)</li><li>○ ExiPrep™48 Dx (1)</li><li>○ Exicycler™ 96 (1)</li><li>○ ExiSpin™ (2)</li></ul> |
| Nucleic Acid Extraction Kit | <ul style="list-style-type: none"><li>○ ExiPrep™ Dx Kits</li></ul>  | <ul style="list-style-type: none"><li>○ ExiPrep™ 48 Kits</li></ul>  |   |
| Real-Time PCR Kit           | <ul style="list-style-type: none"><li>○ AccuPower® Real-Time PCR Kits</li></ul>   |   |   |

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## EQUIPMENT OF EACH SYSTEM

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### Nucleic Acid Extractor



#### ExiPrep™ 16 Dx

- Simultaneous nucleic acid extraction from various types of clinical samples
  - Each of 3 ExiPrep™16 Dx extracts different targets at once
- Handle Max. 48 samples in 90 min
  - Each ExiPrep™16 Dx handles 16 samples in 90 min



#### ExiPrep™ 48 Dx

- Enhanced usability with built in automatic cartridge puncher
- Various option of sample volume : 200, 400 and 800 ul
- Able to using primary tube by docking ExiLT
- Handle Max. 48 samples in an hour



#### ExiPrep™ 96 Lite

- Increased space efficiency by compact size
- High through-put and fast
  - Handle Max. 96 samples in a run
  - Outstanding walkaway time: Approx. 30 min
- Flexible sample volume
  - 24 test x 4 ml
  - 96 test x 0.4 ml

\* ExiPrep™ 96 Lite can not be used as ExiStation™ mode.

### Real-Time PCR



#### Exicycler™ 96

- Superior sensitive optics by light polarization which remove a reflection light, allowing precise quantification and target discrimination
- Improved thermal block ramping rate
  - Reduced run time by 25% (Max. 96 samples in 90 min)
  - Two types: Normal block (Max. 4.5°C/sec), Fast block (Max. 5.0°C/sec)
- 5 channel multiplex detection without use of a reference dye

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## CHARACTERISTICS

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### Ultra Sensitive Analytical Platform for MDx

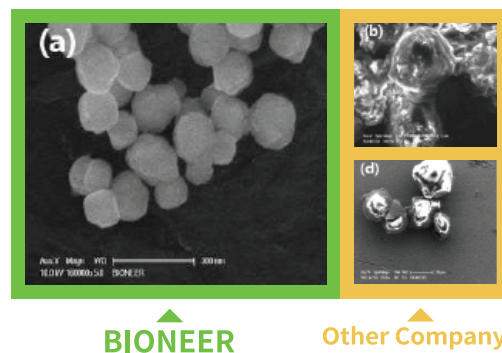
BIONEER's *ExiStation*<sup>™</sup>, Universal Molecular Diagnostic System, is a fully integrated proprietary platform that combines unique strengths of high quality sample preparation and PCR reagents with automated analysis, making it an ultra sensitive molecular diagnostic platform unmatched by any others.

### *ExiStation*<sup>™</sup> Series

- Comprised of *ExiPrep*<sup>™</sup>16/48 Dx for automated sample preparation, one *Exicycler*<sup>™</sup> 96 for detection
- Able to detect low copies of nucleic acids in samples owing to built-in quality control system
- Easier diagnosis with pre-installed protocol and automated results analysis by *ExiStation*<sup>™</sup> software

### *ExiPrep*<sup>™</sup> Kits

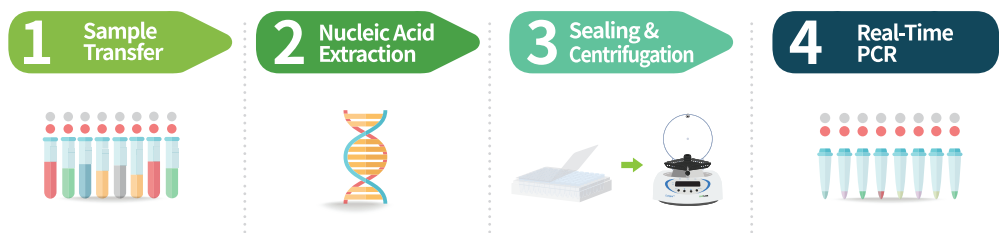
- High-purity nucleic acid extraction from any clinical specimens such as whole blood, serum, plasma, CSF, saliva, swab, cell free body fluid and etc.
- Optimized for Protocol-driven automated nucleic acid extraction using *ExiPrep*<sup>™</sup> instruments
- Magnetic Silica Nanobead-based purification
- DNase- & RNase-free elution buffer system



### *AccuPower*<sup>®</sup> Real-Time PCR Kits

- *In vitro* Quantitative /Qualitative diagnostic kits for various diseases
- Automation Instrument: Optimized for *Exicycler*<sup>™</sup> 96
- Various patented technologies are applied
  - *AccuPower*<sup>®</sup> : All components necessary for Real-Time PCR are contained within one tube increases the stability of reagents and simplified reaction setup
  - *Hot-Start*<sup>™</sup> (for DNA) : Eliminates non-specific DNA amplification the most sensitive PCR assays available
  - *Dual-HotStart*<sup>™</sup> (for RNA) : Eliminates non-specific cDNA synthesis and non-specific DNA amplification the most sensitive one-step RT-qPCR assays available

## WORKFLOW



|                        |  |   |   |   |
|------------------------|--|---|---|---|
| <b>ExiStation™</b>     | <ul style="list-style-type: none"> <li>Transfer sample to sample tube</li> <li>Insert components into <i>ExiPrep™</i>16 Dx</li> </ul>                                | <ul style="list-style-type: none"> <li>Select protocol and run use 1, 2 or 3 instruments</li> </ul> |   |   |
| <b>ExiStation™ 48</b>  | <ul style="list-style-type: none"> <li>Transfer sample to sample tube</li> <li>Insert components into <i>ExiPrep™</i>48 Dx</li> </ul>                                |   | <ul style="list-style-type: none"> <li>Seal PCR tube</li> <li>Vortexing and Centrifugation using <i>ExiSpin™</i></li> </ul> | <ul style="list-style-type: none"> <li>Run Real-Time PCR using <i>Exicycler™</i> 96</li> <li>Result analysis using <i>ExiStation™</i> Manager software</li> </ul> |
| <b>ExiStation™ 48A</b> | <ul style="list-style-type: none"> <li>Input primary tube and components into <i>ExiLT</i></li> <li>Automatically transfer sample to <i>ExiPrep™</i>48 Dx</li> </ul> | <ul style="list-style-type: none"> <li>Select protocol and run</li> </ul>                           |   |   |

## THROUGH-PUT

|  | Max. No. of test / a day<br>(based on 9-hour workday) | Hands on time <sup>1</sup><br>(for Extraction) | Extraction             | Hands on time <sup>1</sup><br>(for PCR) | PCR Analysis |
|--|---|--|------------------------|---|--------------|
| <i>ExiStation™</i><br>(with 1 <i>Exiprep™</i> 16 Dx) | 48 tests  | 15min  | 1hr 30min              | 15min                                   | 1hr 20min    |
| <i>ExiStation™</i><br>(with 2 <i>Exiprep™</i> 16 Dx) | 96 tests  | 30min  | 1hr 30min              | 15min                                   | 1hr 20min    |
| <i>ExiStation™</i><br>(with 3 <i>Exiprep™</i> 16 Dx) | 144 tests   | 45min  | 1hr 30min              | 15min                                   | 1hr 20min    |
| <i>ExiStation™</i> 48                                | 144 tests   | 35min  | 1hr                    | 15min                                   | 1hr 20min    |
| <i>ExiStation™</i> 48A                               | 192 tests   | 5min   | 1hr 20min <sup>2</sup> | 15min                                   | 1hr 20min    |

<sup>1</sup> Hands on time could vary depending on the user and instrument.

<sup>2</sup> It contains the operation time of *ExiLT*.

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## APPLICATIONS

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### AIDS

- Human Immunodeficiency virus (HIV)

### Hepatitis

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)

### Sexually Transmitted Infections

- STI8A (CT/NG/UU/MG)
- STI8B (TV/MH/HSV-1/HSV-2)
- STI4C (CA/GV/UP/TP)
- STD2A (CT/NG)
- *Chlamydia trachomatis* (CT)

### Tuberculosis

- MTB & NTM
- *Mycobacterium tuberculosis* (MTB)
- Non-tuberculous Mycobacteria (NTM)
- MDR-TB (RIF, INH resistance)
- XDR-TB (Fluoroquinolone, Ethambutol, Streptomycin, Second line drug resistance)

### Transplantation-related Virus

- Human Cytomegalovirus (CMV)
- Epstein-Barr virus (EBV)
- BK virus (BKV)

### Respiratory Pathogen

- Influenza A (InfA)
- New Influenza A (New InfA)
- Middle East Respiratory Syndrome (MERS)
- *Chlamydia pneumomiae* (CP)
- *Mycoplasma pneumomiae* (MP)

### Gastrointestinal Pathogens

- Norovirus
- Enterovirus

### Human Papillomavirus

- Human papillomavirus 16/18 (HPV16/18)

### Mosquito-borne Diseases

- Zika virus (ZIKV), Dengue virus (DENV) & Chikungunya virus (CHIKV)

### Human Genotyping

- MTHFR
- Factor V Leiden
- HLA-B27

## Contact Us

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