

CentriDx™ Automated Nucleic Acid Detection Analyzer

CentriDx™ Automated Nucleic Acid Detection Analyzer, designed and developed by Bioer Technology, leverages leading microfluidic chip technology combined with unique centrifugal rotation (including acceleration, deceleration, and positioning) to drive precise liquid flow and mixing. CentriDx™ enables seamless nucleic acid extraction, amplification, and detection processes within the microfluidic chip, streamlining experiments for enhanced simplicity, speed, and accuracy. With its compact, user-friendly design, CentriDx™ requires no setup or calibration procedures – simply plug and play. The intuitive software interface further simplifies operation, eliminating the need for complex experimental configurations.

Features

Fully Automated

Without the need for additional handling, the integrated microfluidic cartridge enables automated nucleic acid extraction and amplification detection by liquid flow.

Simple Workflow

The reagents are pre-embedded, with minimal hands-on time, just to add samples in, then results out.

Expandable Modules

Modular design for flexibility.

Multiplex Detection

Featuring a 4 - 6 fluorescence channel design, this system supports the simultaneous detection of up to 48 targets and offers customizable panels.

All- in-One Cartridge

Totally enclosed microfluidic chip to reduce the risk of contamination.

Fast, Easy and Efficient

Sample in, result out within 60 minutes.



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- Accurate
- Ultra-multiplex
- Qualitative
- Customizable Panel



CentriDx™ Automated Nucleic Acid Detection Analyzer

Microfluidic Chip



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Microfluidic Chip Technology:

 1. Monolithic integrated chip without moving parts.
 2. Pre-embedded reagent, sample-to-answer detection.
 3. Fully closed chip to avoid cross contamination.
 4. Well-proven magnetic bead nucleic acid extraction and qPCR analysis workflow.
 5. Storage at atmospheric pressure under room temperature.
 6. Centrifugo-pneumatic eluate aliquoting with CV≤3% for multiplexing.



CentriDx 200 Test Panels (Microfluidic Chip)

Sample in, result out in just one hour



7-Target Respiratory Pathogen Nucleic Acid Detection Kit

Sample Type: oropharyngeal swab, nasopharyngeal swab

- Novel Coronavirus
 - Influenza A Virus
 - Adenovirus
- Influenza B virus
 - *Mycoplasma Pneumoniae*
- Respiratory Syncytial Virus Subtype A
 - Respiratory Syncytial Virus Subtype B



17-Target Respiratory Pathogen Nucleic Acid Detection Kit

Sample Type: oropharyngeal swab, nasopharyngeal swab

- Novel Coronavirus
 - Adenovirus
 - *Chlamydia pneumoniae*
 - Bocavirus
 - Rhinovirus
 - *Haemophilus influenzae*
- Influenza A
 - Influenza B
 - *Mycoplasma pneumoniae*
 - Human metapneumovirus
 - Enterovirus
 - *Streptococcus pneumoniae*
- Respiratory Syncytial Virus Subtype A
 - Respiratory Syncytial Virus Subtype B
 - Parainfluenza virus type I
 - Parainfluenza virus type II
 - Parainfluenza virus type III



19-Target Lower Respiratory Pathogen Nucleic Acid Detection Kit

Sample Type: sputum, broncho alveolar lavage fluid (BALF)

- *Cryptococcus spp.*
 - *Cryptococcus neoformans*
 - *Cryptococcus gattii*
 - *Aspergillus spp.*
 - *Pneumocystis spp.*
 - *Pneumocystis jirovecii*
 - *Haemophilus influenzae*
- *Bordetella pertussis*
 - *Bordetella parapertussis*
 - *Moraxella catarrhalis*
 - Group A *Streptococcus*
 - *Klebsiella pneumoniae*
 - *Legionella spp*
- *Chlamydophila psittaci*
 - *Chlamydia pneumoniae*
 - *Legionella pneumophila*
 - *Neisseria meningitidis*
 - *Mycoplasma pneumoniae*
 - *Streptococcus pneumoniae*



25-Target Respiratory Pathogen Nucleic Acid Detection Kit

Sample Type: oropharyngeal swab, nasopharyngeal swab

- Novel Coronavirus
 - Influenza A
 - Influenza A/H1
 - Influenza A/H3
 - Influenza B
 - *Bordetella pertussis*
 - Bocavirus
 - Enterovirus
 - Rhinovirus
- Adenovirus
 - *Mycoplasma pneumoniae*
 - *Chlamydia pneumoniae*
 - Coronavirus 229E
 - Coronavirus OC43
 - Coronavirus NL63
 - Coronavirus HKU1
 - *Streptococcus pneumoniae*
- Respiratory Syncytial Virus Subtype A
 - Respiratory Syncytial Virus Subtype B
 - Human metapneumovirus
 - Parainfluenza virus type I
 - Parainfluenza virus type II
 - Parainfluenza virus type III
 - Parainfluenza virus type IV
 - *Haemophilus influenzae*



13-Target Sexually Transmitted Disease Nucleic Acid Detection Kit

Sample Type: male urethral swab, female cervical swab

- *Chlamydia trachomatis* (CT)
 - *Treponema pallidum* (TP)
 - *Gardnerella vaginalis* (GV)
 - *Mycoplasma hominis* (MH)
 - *Candida albicans* (CA)
- *Neisseria gonorrhoeae* (NG)
 - *Trichomonas vaginalis* (TV)
 - *Haemophilus ducreyi* (HD)
 - *Ureaplasma parvum* (UP)
- *Ureaplasma urealyticum* (UU)
 - Herpes simplex virus type 1 (HSV-1)
 - Herpes simplex virus type 2 (HSV-2)
 - *Mycoplasma genitalium* (MG)



11-Target Diarrheal Virus Nucleic Acid Detection Kit

Sample Type: feces

- Norovirus GI
 - Norovirus GII
 - Astrovirus
 - Enteric Adenovirus
- Sapovirus GI
 - Sapovirus GII
 - Sapovirus GIV
 - Sapovirus GV
- Group A Rotavirus
 - Group B Rotavirus
 - Group C Rotavirus



23-Target Diarrheal Bacterium Nucleic Acid Detection Kit

Sample Type: feces

- *Vibrio parahaemolyticus*
 - *Vibrio cholerae*
 - *Vibrio fluvialis*
 - *Vibrio vulnificus*
 - *Vibrio alginolyticus*
 - *Cronobacter sakazakii*
 - *Bacillus cereus*
 - *Aeromonas hydrophila*
- *Campylobacter spp.*
 - *Campylobacter jejuni*
 - *Campylobacter coli*
 - *Salmonella spp.*
 - *Shigella spp.*
 - *Plesiomonas shigelloides*
 - *Listeria monocytogenes*
 - *Clostridioides difficile*
- *Escherichia coli* O157:H7
 - Enteropathogenic *Escherichia coli*
 - Enterotoxigenic *Escherichia coli*
 - Enterohemorrhagic *Escherichia coli*
 - Enteroinvasive *Escherichia coli*
 - Enteroaggregative *Escherichia coli*
 - *Yersinia enterocolitica*



20-Target Diarrheal Pathogen Nucleic Acid Detection Kit (Product to be launched – target to be confirmed)

Sample Type: feces

- *Clostridioides difficile*
 - *Plesiomonas shigelloides*
 - *Shigella*
 - *Salmonella*
 - *Vibrio parahaemolyticus*
 - *Vibrio cholerae*
 - *Vibrio vulnificus*
- *Campylobacter*
 - *Campylobacter jejuni*
 - *Campylobacter coli*
 - *Yersinia enterocolitica*
 - Astrovirus
 - Enteric adenovirus
 - Norovirus GI/GII
- Enteroaggregative *E. coli* (EAEC)
 - Enteropathogenic *E. coli* (EPEC)
 - Enterotoxigenic *E. coli* (ETEC)
 - Enteroinvasive *Escherichia coli* (EIEC)
 - Group A rotavirus
 - Sapovirus (I, II, IV, and V)

*The target combinations in the CentriDx detection reagent panel may be adjusted. Final specifications are subject to the official product release.



Workflow

1

Scan microfluidic chip



2

Load sample



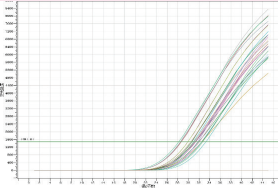
3

Run protocol



4

Result out within 60 min





Specification

Product Name	CentriDx™ Automated Nucleic Acid Detection Analyzer
Product Model	CentriDx 200
Touch Screen	8 inch
Sample Throughput	2, Expandable to 4, 6, 8 throughput
Fluorescence Channels	4, 5, 6
Multiplex	Up to 48 targets
Fluid Drive	Centrifugal rotation
Turnaround Time	≤ 60 minutes
Fluorescence Detection Repeatability	CV ≤ 2%
Max Ramp Rate	≥ 8 °C/s
Precision and Accuracy	0.2 °C
Power Supply	100-240 V, 50/60 Hz, 500W
Dimensions	300 (L)x410 (W)x350(H) mm
Weight	18 kg