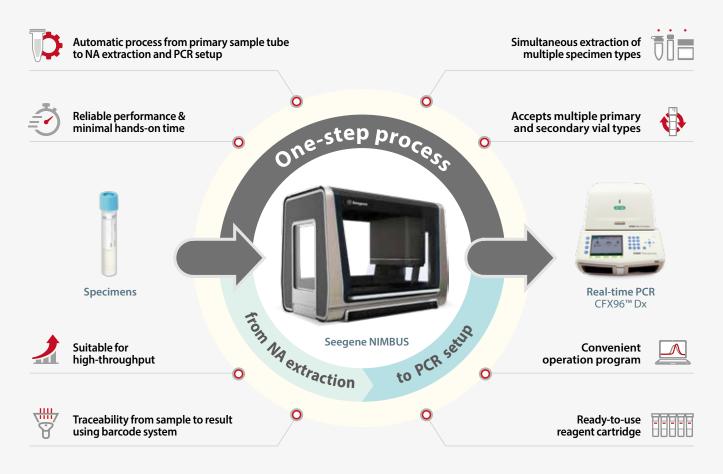


Seegene

NIMBUS

Seegene NIMBUS is an easy-to-use liquid handling workstation from primary sample tube to nucleic acid(NA) extraction and PCR setup. It provides convenient process of your lab works by minimizing hands-on time and maximizing assay reliability.

Seegene's automated MDx platform



Universal Cartridge Kit



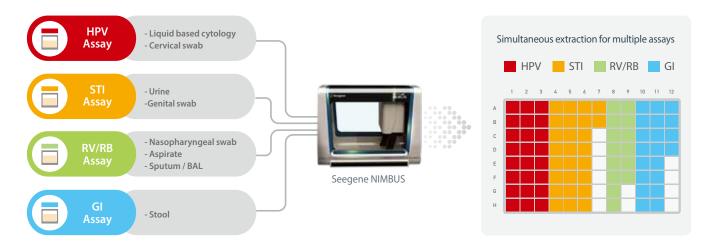
- Whole Blood
- Serum
- Plasma
- Cells - Urine
- LBC (Liquid based cytology) specimen
- Swabs (Nasopharyngeal, Vaginal, Cervical, Urethral Rectal)
- Aspirate (Nasopharyngeal)
- BAL (Bronchoalveolar lavage)
- Sputum

- Stool
- Cary-Blair
- CSF



Simultaneous nucleic acid extraction of multiple specimen types

- · Single set of reagent for extraction of bacterial, viral, genomic, parasitic, fungal DNA and/or RNA from multiple specimen types
- Enhanced efficiency of working hours by reducing sample process time



Maximizing workflow efficiency

- · Multiple specimen types and assays run at the same time
- Open system for laboratory developed tests



Ready-to-use reagent cartridge system

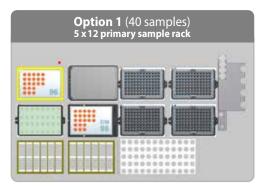
- Predispensed extraction reagents for up to 96 samples in one, re-useable cartridge
- Eliminate hands-on time for reagent preparation
- Verify reagent volume by barcode system

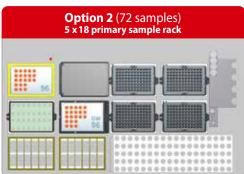




Extraction of maximum 72 samples depending on primary sample rack (option)

- Optional use of 40 or 72 samples
- Maximize sample capacity and throughput by replacing primary sample rack [5 x 12] with [5 x 18]





Convenient operation using 'Seegene Launcher' program

- Intuitive tutorial session for each step of entire process
- Easy integration of sample information by barcode scanner or LIS
- Convenient to trace remaining reagent volume by barcode system
- One click away to run various assays









* HAMILTON's innovative technologies applied to Seegene NIMBUS

HAMILTON's proprietary CO-RE(Compressed O-Ring Expansion) technology attaches disposable tips using a highly robust lock-and-key style mechanism. This enables improving a positional precision and eliminating mechanical stress and minimizing the production of aerosols. And air displacement pipetting system similar to high precision hand-held electronic pipettors can reduce risk of contamination or sample dilution. Anti-Droplet Control (ADC) technology can control pressure changes of liquid channels in real-time. Upon activation, ADC prevents inadvertent dripping from the channels, reducing the risk of contaminating the deck.



One-step process from NA extraction to PCR setup (can be used for PCR setup only)

- Maximize user convenience by minimizing hands-on time
- Selectable functions: entire process from NA extraction to PCR setup, extraction only, and PCR setup only
- Reduction of risks for contamination and human error

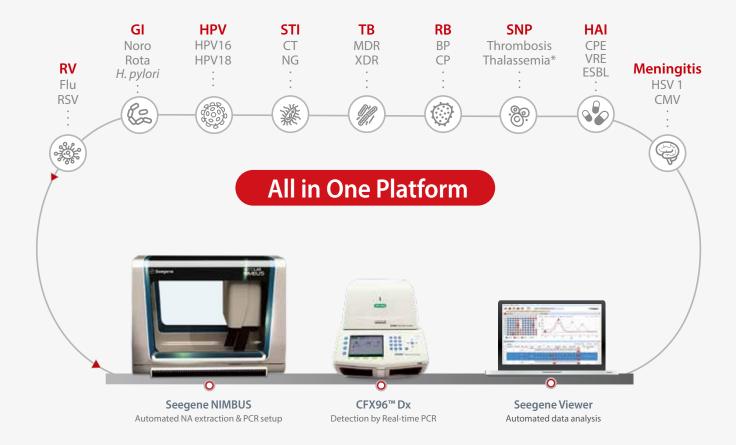




• All in One platform for broad multiplex MDx assays

- One platform to cover various disease area
- Cost-effective to utilize one provider for all solution

* In development



COMPONENT

Independent liquid channels		4 ea
CO-RE gripper arm for labware movements		1 set
Sample rack (selection) :	Sample rack for 32 samples Sample rack for [5 x 12] Sample rack for [5 x 18]	2 ea 1 ea 1 ea
Tip racks		4 ea
Magnetic separater		1 ea
Heater/Shaker (up to 100 °C)		1 ea
PCR plate rack		1 ea
Extraction cartridge rack		2 ea
PCR reagent rack		1 ea
UV Lights		2 ea

SPECIFICATION

Power input	100-240 VAC, 50-60 Hz, 5 A
Power consumption	Maximum 600 W
Dimensions	1041 (W) X 673 (D) X 800 (H) mm (When the door is open, the height is 1230 mm)
Weight	101.4 kg
Maximum Sample capacity	1-72 samples
TAT	3 hrs to process 72 samples (From NA extraction to PCR setup)
Deck capacity	5 x 12 (for 40 samples) , 5 x 18 (for 72 samples)
Pipetting channel	4 channels
Dispensing accuracy (when using 300 µℓ Tip)	$10\mu\ell$: 3%, $50\mu\ell$: 1.5%, $300\mu\ell$: 1%
Dispensing precision (when using $300\mu\ell$ Tip)	10 μℓ : 2%, 50 μℓ : 1%, 300 μℓ : 1%

• ORDERING INFORMATION

Category	Products		Cat. No.
Instrument	CFX96™ Dx	Optical Reaction Module	1845097-IVD
		Thermal Cycler	1841000-IVD
	Seegene NIMBUS		65415-02
	Seegene STARIet		173000-075
Extraction reagent	STARMag 96 x 4 Universal Cartridge Kit		744300.4.UC384
Consumable	High Volume Tips(1000 μ ℓ)		235905
	Standard Volume Tips (300 $\mu\ell$)		235903
	NIMBUS-Waste Bag		65803-01
	NIMBUS-96 Deep Well Micro Plate		67930-03

E-mail: canada@seegene.com