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VERSANT MiPLX Solution

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One Solution—More Choice.

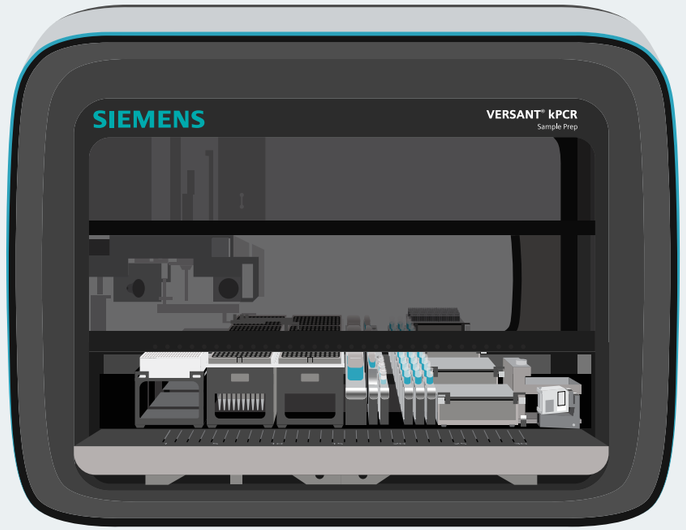
Advancing flexibility, workflow, customization, and consolidation.

The VERSANT kPCR Molecular System

VERSANT MiPLX Solution

Molecular Testing

The VERSANT MiPLX Solution offers the consolidation and customization today's molecular laboratories need. Streamlined workflow capabilities enable optimal performance for precise infectious disease monitoring and more.



Leading the way in molecular diagnostics.

The VERSANT MiPLX Solution, consisting of the VERSANT kPCR Molecular System and the VERSANT MiPLX Software Solution, is a comprehensive and flexible solution for molecular diagnostics.

The VERSANT® kPCR Molecular System is an automated solution that provides standardized sample extraction, flexible open-channel capabilities for laboratory-developed and third-party assays, and quality assays for infectious-disease testing.

The VERSANT kPCR Molecular System with the MiPLX Software Solution is from Siemens Healthcare.

Siemens Healthcare has a history of partnering with healthcare professionals to advance diagnostic testing through the screening and early detection of infectious diseases. The VERSANT kPCR Molecular System and the MiPLX Software Solution demonstrate our commitment to helping physicians better predict and monitor patient outcomes while offering streamlined workflow solutions for the lab.

The VERSANT kPCR Molecular System with the MiPLX Software Solution advances lab workflow through automation.

The VERSANT kPCR Molecular System provides flexibility, efficiency, and productivity with its ease of use, minimum hands-on time, maximum walkaway time, and fast turnaround time.[1]

Increasing flexibility. Boosting productivity.

VERSANT kPCR Molecular System with the MiPLX Software Solution*

The VERSANT kPCR Molecular System with the MiPLX Software Solution provides sample-handling flexibility coupled with proprietary technology for true molecular-testing versatility.

Accurate sample identification

- System tracks sample/patient ID from primary tube to result.
- Primary-tube sampling supports multiple tube sizes.

Quality contamination control

- Air displacement pipetting (ADP).
- Disposable, filtered pipette tips.
- CO-RE technology† (compressed O-ring expansion).
- Uracil-N-glycosylase (UNG).

Efficient performance

- Accurate liquid delivery with unique total aspiration and dispense monitoring (TADM) technology.
- Anti-droplet control (ADC).

Automated workflow

- Multiple sample types per run.
- Short turnaround times.
- Universal DNA and RNA extraction process that supports a wide range of testing applications.

Multiplex testing

- Variety of automated sample extraction protocols to support your other laboratory needs.
- Automated PCR setup for laboratory-developed and third-party assays.
- Multiple assays per individual sample and run by splitting the eluate instead of the sample.

Versatile protocols

- Expand the capability of existing open protocols with features that enable the consolidation of Siemens assay menu with laboratory-developed and third-party assays on a single platform.

Proven efficiency:[1]

Compare the VERSANT kPCR Molecular System and the MiPLX Software Solution with other systems.

Metric	VERSANT kPCR Molecular System	Abbott *m*2000	COBAS AmpliPrep/COBAS TaqMan System
Footprint	~1.4 m^2 (16 ft^2)	~1.5 m^2 (16 ft^2)	~2.7 m^2 (26 ft^2)
Sample capacity	89–94	93	63
Consumables	Moderate	Moderate	High
Ready-to-use reagents	Yes	No	Yes
Daily maintenance	8 minutes	15 minutes	5 minutes
Manual labor (48 samples)	34 minutes	75 minutes	52 minutes
Quantitative run time (48 samples)‡	5 hours, 24 minutes	7 hours, 17 minutes	6 hours, 33 minutes
Qualitative run time (48 samples)§	3 hours, 48 minutes	4 hours, 34 minutes	NA
Integrated system	No	No	Yes (with docking)
Open system capability	Yes, with VERSANT MiPLX Software Solution	No	No

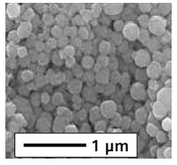
*Product availability may vary from country to country.
†CO-RE, TADM, and ADC are patented, proprietary technologies of Hamilton Company.
‡Listed run time based on HIV assay.
§Listed run time based on CT/GC assay.
1. Nexus Global Solutions, Inc. Data on file, 2008 and 2009.

Raising quality. Ensuring accuracy.

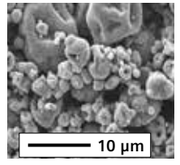
Quality extraction

The VERSANT kPCR Sample Prep allows consolidation of nucleic acid extractions on one benchtop platform. Our automated universal extraction technology isolates both DNA and RNA from a variety of clinical samples using a common set of reagents—reducing inventory and maximizing lab efficiency. The foundation of our extraction technology is proprietary magnetic particles coated with a nanolayer of silica. These particles provide efficient isolation of high-quality nucleic acids, ensuring accuracy and confidence in results.

Siemens magnetic particles with a nanolayer of silica coating are very small (<1 µm) and homogeneous in size and form compared to another manufacturer's beads.



Siemens beads



Another manufacturer's beads

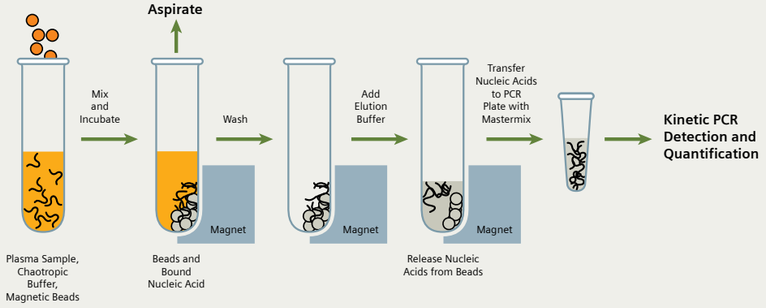
Increased lab efficiency and productivity

- One platform and two reagent kits for both DNA and RNA—for all samples and workloads—minimize equipment needs and QC management concerns.
- Fast, easy setup and walkaway operation.
- Up to 96 samples extracted in under three hours.
- Nine sample extraction protocols enable flexible input and output volumes.
- Primary-tube sampling supports a variety of sample tube types and sizes, including:
  - 11–14.5 x 60 mm
  - 14–18 x 100 mm
  - Gel separator tubes

Confidence in results

- System tracks sample ID from primary tube to eluate to results.
- Process surveillance monitors the execution of all liquid handling and robotic steps.

Universal DNA and RNA extraction protocol



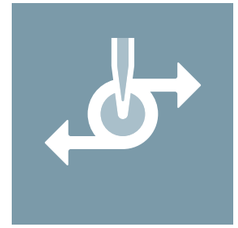
Adding flexibility. Meeting new challenges.

Open-channel system

Our proprietary extraction technology, open-channel system, and MiPLX Software Solution give labs the flexibility to develop their own protocols for the extraction, amplification, and detection of nucleic acid from unknown targets.

This flexibility can help labs meet a wide range of new public health challenges. Labs can also enhance test menus with esoteric assays or emerging pathogens, as needed.

- Extraction of nucleic acids from a wide variety of sample types:
  - Plasma, serum
  - Urine
  - Whole blood
  - Stool
  - Transport media for urogenital swabs
  - Transport media for nasopharyngeal swabs
  - Breast milk
  - Cerebrospinal fluid (CSF)
  - Semen
  - Buccal swab
  - Saliva/sputum
  - Cell culture
  - Ascites
  - PBMC (buffy coat)
  - Amniotic fluid
  - Tears/eye swab
  - Bronchial aveolar lavage (BAL)
  - ThinPrep collection media
  - SurePath collection media
- The customizable MiPLX Software Solution enables automated extraction and PCR setup for laboratory-developed and third-party assays.
- Dynamic protocols expand the capability of existing open protocols with features that enable the consolidation of the Siemens assay menu with laboratory-developed and third-party assays on a single platform with the same workflow.
- Dynamic protocols provide the ability to get more information out of a single sample extraction by splitting the eluate instead of the sample.



- Laboratory-developed and third-party assays have full system software capabilities, including sample ID tracking.
- Ability to define and save detection protocols with multiple parameters (e.g., thermal profile, data collection points, and data analysis methodologies).
- Simultaneously run up to six assays from a single sample.
- Results are either displayed or exported for further analysis.

Supports a variety of sample types

Improving reliability. Reducing risk.

The VERSANT kPCR Molecular System's qualitative and quantitative assays for infectious-disease testing

The VERSANT kPCR Molecular System assay menu, complemented by our extraction technology, provides high performance and quality results. The design of each assay is thorough and robust, lowering the risk of sample contamination.

The VERSANT kPCR Molecular System assay menu[**]

- Human immunodeficiency virus 1 (HIV-1)
- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Cytomegalovirus (CMV)
- Epstein-Barr virus (EBV)
- BK virus (BKV)
- JC Virus (JCV)
- Varicella-zoster virus (VZV)
- Herpes simplex virus 1 and 2 (HSV 1 and 2)
- Human herpesvirus 6 (HHV-6)
- Adenovirus
- Parvovirus B19
- C. trachomatis and N. gonorrhea (CT/GC)
- Zika Virus (ZIKV)[††]

Outstanding assay performance

- Outstanding precision across the dynamic range.
- Technology compatible with the genetic diversity of viral and bacterial variants.
- Internal control to monitor PCR inhibition reduces risk of false-negative results.
- Minimal sample input volume facilitates repeat testing.

"The VERSANT kPCR Sample Prep system and reagents provide high-quality nucleic acids from a wide variety of specimens including difficult samples such as stool. In particular, the open channel feature allows us to automate other manufacturers' assays as well as laboratory developed assays. Being able to do this brings workflow improvements to our molecular virology laboratory."

Dr. Rolf Kaiser, Institute of Virology
University of Cologne, Cologne, Germany

Real-time PCR assays for infectious disease testing

**CE marked for IVD use. Product availability may vary from country to country.

††Emergency Use Authorization (EUA) and Research Use Only (RUO) assays available. Product availability varies and is subject to country specific regulatory requirements.

Consolidation:
Doing more with less

From increased efficiency and new industry standards in extraction to assay reliability and system flexibility, the VERSANT kPCR Molecular System with the MiPLX Software Solution is a comprehensive molecular diagnostics solution. The open-channel concept and customizable MiPLX software set a new industry standard and further reduce the need for manual labor so that personnel can spend time on other value-added activities.

The VERSANT kPCR Molecular System with MiPLX Software Solution at a glance

- Compact footprint.
- Simple user interface.
- Bidirectional LIS interface.
- Award-winning customer service and support, including online and in-person education and training, as well as ongoing technical support.

Nucleic acid extraction for quality

- Proprietary extraction technology.
- Universal extraction protocol for DNA and RNA.
- Extraction of nucleic acid from a wide variety of sample types.
- Up to 96 samples extracted in less than three hours.
- Primary-tube sampling supports a variety of tube sizes.

Open-channel capabilities for flexibility

- Full system software capabilities.
- Nine protocols for extraction of nucleic acids.
- Ability to simultaneously run up to six assays using nucleic acid extracted from one patient sample.
- Consolidation of Siemens assays with laboratory-developed and third-party assays onto a single platform with the same workflow.

kPCR assays for confidence in results

- Positive sample identification.
- Contamination controls.
- Assay design delivers high sensitivity, accuracy, and precision.

Take the next step.

Explore how the VERSANT kPCR Molecular System with the MiPLX Software Solution can increase efficiency, flexibility, and quality in your laboratory.

Visit **siemens.com/molecular**, or contact your local Siemens Healthcare sales representative for a virtual tour.