

Agilent Automation Solutions Checks All Your Boxes

Agilent automation solutions portfolio

















Automation Solutions for Everyone— Novices to Experts

The power of automation is now accessible to address sample preparation needs for proteins, genomics, NGS applications, cell analysis, and metabolomics workflows. The Agilent powerful handling platforms reduce setup times and simplify protocol development with an easy-to-use interface, optimized protocols, and preconfigured instrumentation.

You can also work with Agilent product specialists and automation engineers to configure instrumentation to meet your specific workflow needs.

Automate complex biological, biopharmaceutical, and chemical analysis methods.

Genomics

- ☑ NGS library preparation
- NGS target enrichment
- ☑ PCR setup/cleanup
- ☑ DNA/RNA isolation
- ☑ Microarray-based sample preparation

Proteomics

- ☑ AssayMAP microchromatography
- ☑ Protein sample preparation for LC/MS analysis

Screening

- ☑ High-throughput screening
- ☑ Hybridoma assessment
- ☑ High-content screening
- ☑ Compound management

Cell biology

- ☑ Cell maintenance
- ☑ Cell-based assays
- ☑ Transfections/transductions
- ☑ Gene editing

ADME/TOX

- ☑ Caco-2 permeability
- ☑ CYP450 inhibition
- ☑ Cytotoxicity
- ☑ Microsomal stability assays

For information on automating your application, contact Agilent today: www.agilent.com/chem/contactus

Configurable Turnkey Solutions to Meet Your Requirements as Needs Change

The Agilent Bravo liquid handling platform represents the strength and core of the Agilent automation portfolio. It combines microplate-based liquid handling with versatility and speed—in a compact footprint.

Features of this automated liquid handling system include interchangeable 96- and 384-channel pipetting heads as well as the AssayMAP microchromatography head. A vast array of deck accessories and application-specific configurations with validated protocols make this the most capable handler available.

Bravo liquid handler

A versatile, configurable platform for sample preparation





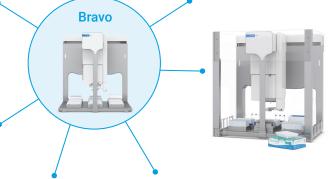
AssayMAP Bravo

Preconfigured microchromatography platform for protein and peptide sample preparation

Bravo NGS

Preconfigured for next-generation sequencing sample preparation





Bravo metabolomics

Preconfigured for metabolite and lipid extraction from blood plasma or cells for mass spectrometry analysis



Bravo NGS workstation

High-throughput next-generation sequencing sample preparation

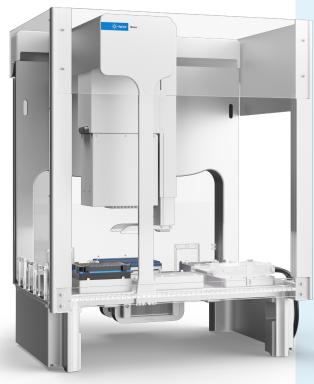


Bravo liquid handler for cell analysis

Preconfigured for cell analysis sample preparation

High Throughput for Genomics and Molecular Biology

The Agilent Bravo NGS is a flexible and compact automated liquid handling platform with preconfigured deck accessories to streamline your routine genomic workflows, including library preparation and target enrichment for next generation sequencing (NGS). VWorks software allows operators to quickly start the system and run pre-programmed protocols with confidence, while the open platform provides the flexibility to serve a wide range of applications. The software is flexible and designed for every level of experience. Researchers can quickly start using the Bravo NGS with ready-to-use graphical user interface and run preprogrammed protocols with confidence.



Agilent Bravo NGS

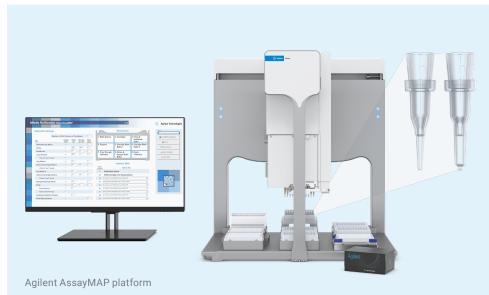
- ☑ Get up and running quickly with ready-to-use protocols and predeveloped methods for Agilent SureSelect, Agilent HaloPlex, Illumina TruSeq, NuGEN Ovation, KAPA HTP, PacBio SMRTbell, NEBNext, and more.
- ☑ Easy-to-use interface allows you to run automated methods without any programming experience.
- ☑ Consistent data quality to increase your throughput with reproducible results, every time.
- ☑ Open platform allows you to confidently automate more NGS or genomics methods.
- ☑ Increase automation efficiency with additional microplate handling capacities for hands-free workflows.
- ☑ Reliable data quality allows you to increase your throughput, with consistent results every time.
- Turnkey solution includes heating, cooling, shaking, and magnetic separation accessories for NGS sample preparation.
- ☑ Versatile system can easily run a range of sample preparation protocols, including NGS library prep target enrichment and qPCR setup.
- The optional on-deck thermal cycler (ODTC) is a compact and configurable accessory on the Bravo NGS system that increases walk-away time and simplifies workflows.

Learn more about the Agilent Bravo NGS

Walk-Up Automated Protein and Peptide Sample Preparation

The Agilent AssayMAP Bravo platform is a powerful, yet easy-to-use, automated microchromatography platform. The system consists of a precision liquid handler with 96 syringes, packed-bed cartridges, and intuitive software with pre-optimized sample preparation protocols. Together, these components let you prepare 1 to 96 samples with all the advantages of chromatography.

- Reproducible, scalable, robust liquid handling system with intuitive operating software for ease of use.
- Proven performance with hundreds of peer reviewed publications—see the <u>AssayMAP Bravo</u> citation index.
- Pre-optimized protocols and permission-level control enable walk-up operation with minimal training
- Seamless transfer of assays between nonregulated and 21 CFR Part 11 regulated labs made possible with compliance enabling software features.
- Automatic report generation captures the key steps executed during sample preparation.
- A wide range of cartridge chemistries and sizes that can address many experimental needs.
- Semi-automated loading of Evosep Evotip Pure tips enables nanoflow mass spectrometry using the Evosep One instrument and Agilent LC/MS systems.



The AssayMAP Bravo platform is based on three key elements:

- Microchromatography cartridges with a wide range of standard chemistries.
- Proprietary positive-displacement probe syringes.
- Intuitive software designed to balance simplicity and flexibility.

Learn more about the

Agilent AssayMAP Bravo platform

Achieve Consistent and Reproducible Results That Are Operator Independent

Manual sample preparation for metabolomics research is subject to variations between different batches and scientists. Automation increases throughput, consistency, and reproducibility—resulting in fewer replicates being needed.

The Agilent Bravo metabolomics sample prep platform is a state-of-the-art liquid handler equipped with on-deck accessories and software designed to automate metabolomics sample preparation procedures. The platform utilizes the dependable performance of the Bravo liquid handler.





- ☑ The platform includes all hardware, accessories, and software in a compact footprint.
- ☑ Standardized, reproducible protocol delivers consistent data across runs and between operators.
- ✓ Scalability allows increased throughput without sacrificing the quality of your results.
- ☑ Software features a simple, intuitive interface that helps operators of all experience levels start and run the protocol quickly.
- ☑ Standardize plasma sample preparation leading to downstream LC/MS analysis.

Learn more about the Agilent Bravo metabolomics sample prep platform

Workflow Solution for Live-Cell Assay Sample Preparation

Scientists continuously seek new approaches to achieve a more holistic understanding of cellular mechanisms. Obtaining reliable data from live cell-based assays can be challenging if assay preparation methods are not reliable. Automated sample preparation can maximize productivity and minimize human error. With a workflow that integrates the Bravo liquid handler, ready-made sample preparation protocols, and Agilent microplates, you can achieve greater lab efficiency and data precision.



Bravo platform with workbench software

- ✓ Includes prewritten, easy-to-use protocols for Seahorse XFe96 sample preparation.
- ☑ Boosts laboratory efficiency and walk-away time.
- Provides consistent results day-today and operator-to-operator.
- ☑ Can be programmed to create protocols for your specific workflow needs.

Learn more about the Bravo BenchCel workstation



Seahorse XF instrument and assays

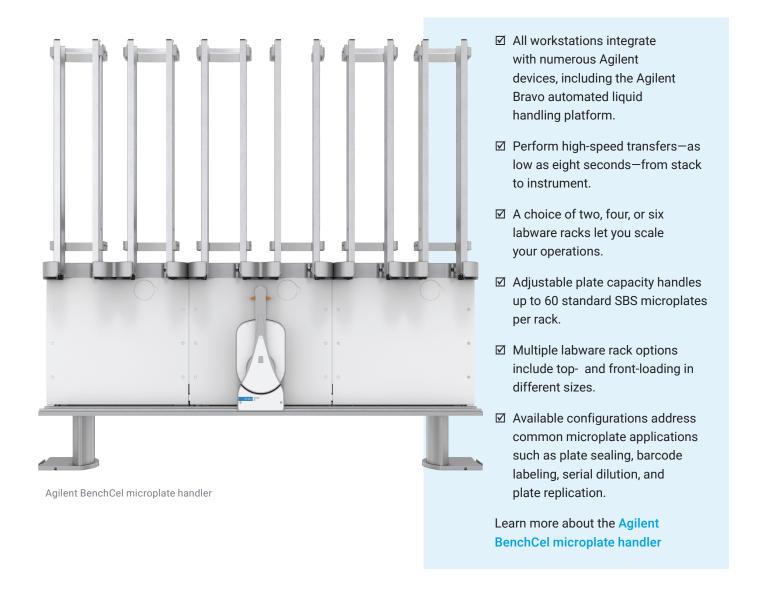
- Delivers rapid, real-time detection of cellular responses to compounds.
- ☑ Enables label-free measurements of mitochondrial function that works in almost any cell type.
- Reveals relationships between target perturbation and cell function.

Learn more about Seahorse analyzers

- Standardize sample preparation. Intuitive software ensures consistent results between users.
- Increase walk-away time, improve the efficiency
- of your lab personnel.
- Minimize variability to generate consistent data no matter who is running the protocol.

Meet Your Growing Needs With Modular Microplate Processing

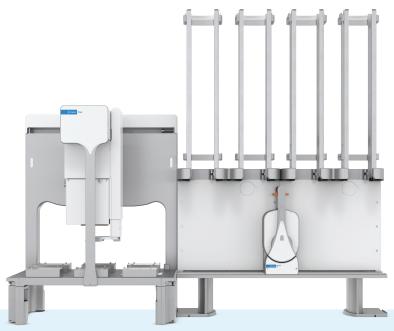
Do you want to make your routine microplate workflow easier and more reliable? Accelerate your research with Agilent BenchCel workstations. At the center of each workstation is the BenchCel microplate handler, designed to streamline your high-throughput applications and give you more unattended time.



Greater Capacity, More Walk-Away Time

The Agilent Bravo BenchCel workstation combines the automated liquid handling functions of the Bravo platform with the microplate stacking abilities of the BenchCel workstation. This combination allows you to process high numbers of microplates in a small footprint.

The BenchCel workstation reaches high processing speeds while maintaining accurate, precise pipetting—saving you both time and reagents.



Agilent Bravo BenchCel workstation

- ☑ Two, four, or six stacker configurations enhance scalability.
- ✓ Precise pipetting ensures highly accurate and reproducible transfers.
- ☑ Platform can be integrated with Agilent PlateLoc thermal microplate sealer, microplate barcode labeler, microplate centrifuge, and Labware MiniHub.
- ☑ Liquid handling capabilities enable high-throughput workflows such as microplate replication and serial dilutions.

- ☑ Save time with eight-second transfers from stack to instrument.
- Adjustable plate capacity handles up to 60 standard SBS microplates per rack.

Learn more about the Agilent Bravo BenchCel workstation

More Ways to Maximize Microplate Handling Efficiency

Agilent microplate management instruments are designed for speed, reliability, and simplicity. Their small footprint and easy access make them ideal for robotic integration.



PlateLoc thermal microplate sealer

The PlateLoc can be operated as a standalone instrument or integrated with an Agilent BenchCel. Plate sealing tape made of various materials is available to address a variety of sealing needs. The PlateLoc uses heat to seal the plates, avoiding potential contamination of samples. It also has optional gas purging and the ability to seal a large variety of plate types. Learn more



Application-proven consumables

Achieve the best performance from your Agilent lab automation instruments with Agilent-certified compatible consumables for reproducible and reliable analytical data. Bravo liquid handling pipette tips, AssayMAP microchromatography cartridges with diverse resin chemistries for protein sample preparation, and PlateLoc microplate seals and barcode labels. Learn more



Microplate labeler

Label up to four sides of labware with text, linear barcodes, and 2D matrix codes from various data sources, including CSV files. With a small footprint, easy-to-access plate stage, and straightforward device drivers, the labeler can be standalone or integrated. Use with an optional linear barcode reader to clone existing labels, verify label data or systematic microplate tracking. Integrate with Agilent BenchCel microplate handler for high-throughput labeling. Learn more



BenchCel microplate handler

With its high-speed robot and modular design, the BenchCel microplate handler provides the flexibility and scalability you need for diverse applications. What's more, it easily integrates with many laboratory devices. Learn more



Agilent Labware MiniHub

This rotating, random-access microplate hotel stores and presents SBS-foootprint labware for automated microplate handling systems. The MiniHub features user-configurable shelf spacing that easily accommodates a mix of microplates, reservoirs, deep-well plates, and pipette tip boxes while maintaining a compact footprint. Learn more



Microplate centrifuge

A compact, robot-accessible automated centrifuge with both vibration and noise control. Compatible with all ANSI-standard microplates, the centrifuge is ideal for PCR purification, cell harvesting, and air bubble removal in high-density microplates. Stackable design increases system throughput without adding to the footprint. Integrate with Agilent BenchCel microplate handler for high-throughput applications.

Learn more



VWorks Lab Automation Control Software

Simplified and Integrated Laboratory Automation

VWorks software provides a single, intuitive user interface that seamlessly controls Agilent lab automation instruments. Combining the ultimate in flexibility and ease of use, VWorks empowers users to run validated protocols with the click of a button as well as easily develop custom methods with precision and total control.

In multiuser environments, validated workflows can be user-permission controlled (Standard) and secured (Plus) for total confidence in sample processing. VWorks protocols are fully transferable between instruments, facilitating easy scalability and method-transfer across multiple instruments and between lab facilities.

Compliance-enabling VWorks Plus

VWorks Plus provides a suite of features to support compliance for regulated lab environments. Following the guidance of U.S. FDA CFR Title 21 Part 11 and EU Annex 11, VWorks Plus provides:

- ☑ Electronic signatures for controlled record progression
- ☑ Human-readable sample processing reports
- ☑ Secure record storage
- ☑ Customizable user-permissions for diverse lab roles
- ☑ Audit trails and human-readable reports for traceability



Put Our Insight to Work for You



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