

# Intelligence That Inspires Confidence

Agilent 6495 triple quadrupole LC/MS system



# Start Building Your Lab of the Future Today

To stay competitive and adjust to changing industry requirements, you need evolved instrumentation at the core of your complete workflow solution to meet current and future challenges. Your focus should also be on method development time, workflow efficiency, and the ability of staff members to produce reliable, reportable results, regardless of skill.



## Meet the Agilent 6495 triple quadrupole LC/MS system

If you are under pressure to deliver meaningful results, the 6495 triple quadrupole LC/MS (LC/TQ) is the sensitive, robust choice. Comprehensive workflows get your lab up and running fast, and allow even novice users to generate expert results. So, you can focus on what inspires you and meet every challenge that comes your way.



# Delivering meaningful insights

With submillisecond dwell times, the 6495 LC/TQ provides ultimate sensitivity for all applications without sacrificing robustness or reproducibility.

## Lower your limits of detection

The dual-stage Agilent iFunnel technology captures more ions for an up to 10-fold improvement in signal, and more precision for the most challenging applications.



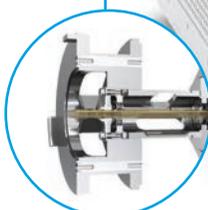
## Reduce chemical noise

The tapered and curved hexapole collision cell refocuses fragment ions and substantially decreases noise by eliminating neutrals.



## Analyze a wide range of analytes and ions

The octapole ion guide lets you transmit a wide  $m/z$  range to cover small molecules, peptides, oligonucleotides, and other polymers.



## Minimize downtime, increase throughput

Agilent VacShield allows routine maintenance without venting.



## Confidently quantitate target compounds

Heated hyperbolic quadrupoles isolate and transmit ions efficiently and cleanly, with high precision and stability.



## Achieve exceptional linear range

A 20 kV high-energy dynode and electron multiplier detector system produce linear results for small, large, positive, and negative ions within the same analytical run.



# Gain the flexibility to ionize any kind of sample

Our extensive ion source portfolio lets you choose the ideal match for your specific application.



## Electrospray ionization (ESI)

Analyze a broad array of molecules in a concentration-dependent manner. Suitable for standard flow, capillary flow, and nanoflow techniques.

[Learn more](#)



## Agilent Jet Stream

Dramatically increase ion formation via enhanced droplet desolvation with the aid of superheated nitrogen sheath gas for ultrahigh sensitivity.

[See how](#)



## Agilent atmospheric pressure chemical ionization source (APCI)

Combine your standard electrospray analysis with APCI to detect difficult-to-ionize polar and nonpolar analytes.

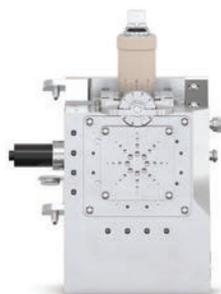
[Explore more](#)



## Multimode source (MMI)

Deliver simultaneous ESI and APCI without having to compromise between information and sensitivity. Improve coverage across a wider range of analytes.

[Find out how](#)



## Nano electrospray (nano ESI)

Evaluate the broadest range of molecules, based on concentration. Nano ESI works for labs running low-flow LC/MS applications providing sensitivity for small sample quantities.

[Learn more](#)



## Get answers. Share insights. Build connections.

Find answers and insights in the Agilent Community, which is more than 10,000 members strong. There, you can review curated support materials, ask questions, and get notified about new resources relevant to your work.

[community.agilent.com](https://community.agilent.com)

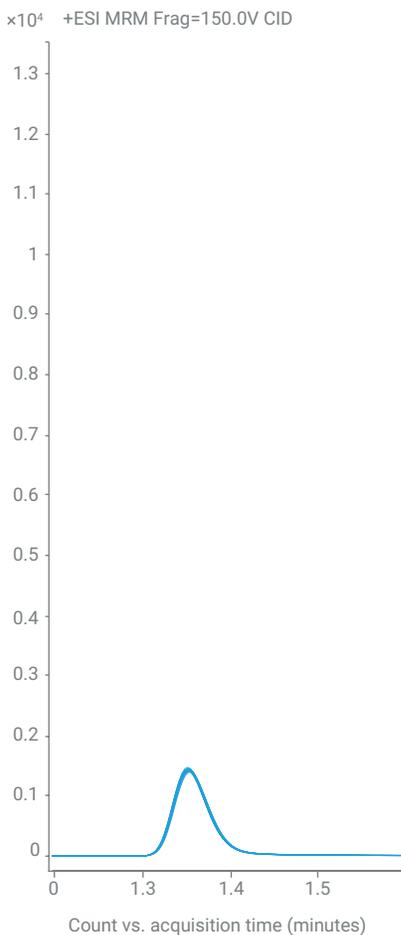
## Sensitivity without compromise

Our most sensitive and highest performance LC/TQ available, proven by the instrument detection limit (IDL) statistical measurement. IDL is a more robust and reliable method to assess mass spectrometry detection limits and precision, giving you more confidence that your signal is not noise. iFunnel technology dramatically improves instrument sensitivity while maintaining high precision at sub-millisecond dwell times.

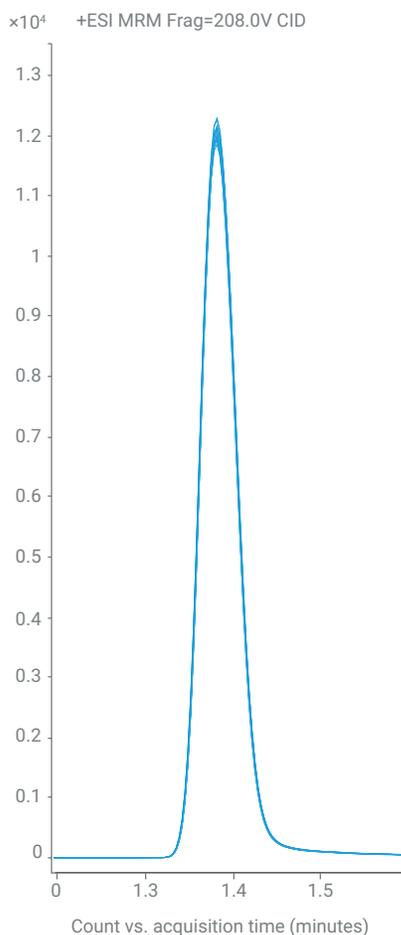
Make meaningful discoveries that allow you to detect previously undetected targets, or increase your throughput dramatically by adding targets in your method.

Instrument sensitivity is proven onsite using replicate injections and is guaranteed to perform according to datasheet specifications or better.

Without iFunnel



With iFunnel



Up to 10 times stronger signal. Signal comparison between non-iFunnel instrument and an instrument that includes iFunnel technology.



### Want to minimize errors and improve consistency between analysts?

Agilent University offers flexible, cost-effective training options to help you plan, prioritize, and manage lab resources. Your team will also gain insights into boosting efficiency and minimizing downtime. Plus, you can choose the training format that suits you best—including in person, virtual, and online.

[www.agilent.com/crosslab/university](http://www.agilent.com/crosslab/university)

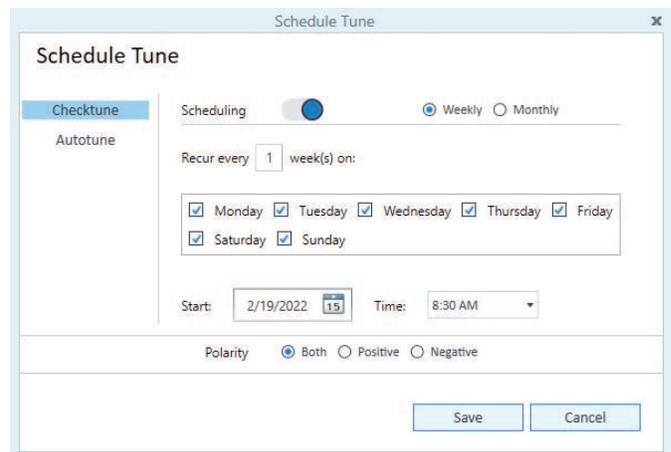
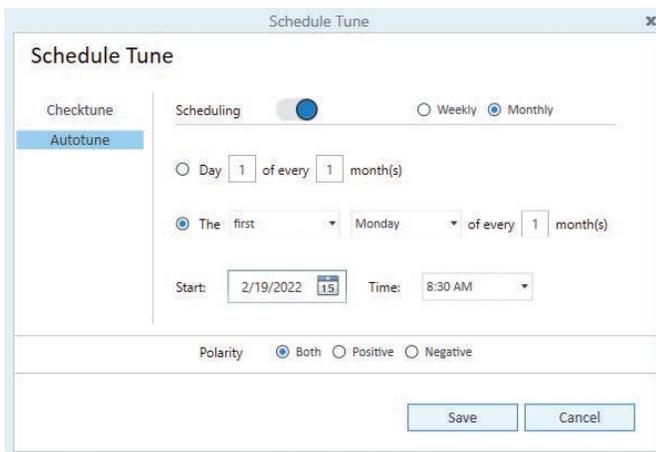
# Use every minute productively with start-to-finish instrument intelligence

Whether your lab is large or small, contract or in-house, success depends on the timeliness and accuracy of the data generated by your instruments. And when everything's working smoothly, you can spend more time on what matters.

With its new intelligence features, the 6495 LC/TQ works as hard as you do. It monitors system health, alerts you to potential issues, and helps you solve problems. That means you can plan your work—including maintenance—rather than react to unexpected downtime.

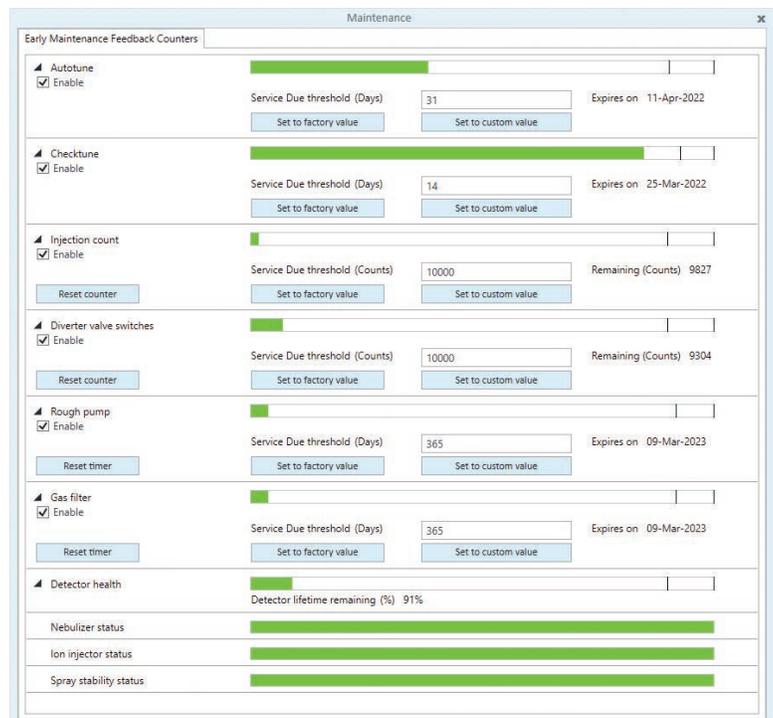
## Make sure that your instrument is ready when you are

Start your day on a productive note with a scheduled autotune. You can automatically set your 6495 LC/TQ to tune and calibrate before you arrive, or instruct the instrument to produce periodic checktune reports.



## Monitor system health in real time

Early maintenance feedback actively monitors instrument metrics and reports the results to you. Each component has its own built-in monitor, so you can quickly and easily review status and know the health of your instrument.



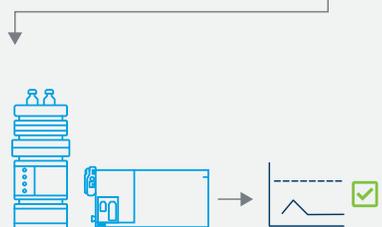
## Ensure confidence and throughput

Agilent Intelligent Reflex—our newest intelligence feature—enables reflexive reinjection logic to ensure that your results are immediately trustworthy and within operational limits. Fast screening workflows with Intelligent Reflex also improve sample throughput by using a shortened LC method for screening and a standard method for quantitation.

### How does Intelligent Reflex improve lab throughput for LC/TQ workflows?



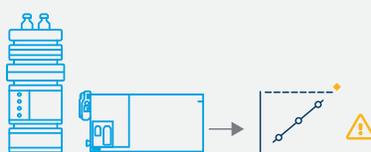
Blank injection      Test for carryover



Blank injection      Test for carryover

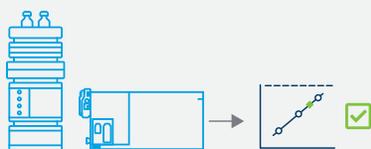
Next sample

Carryover detection inserts extra blanks, ensuring that the previous sample does not affect the next sample.



Acquisition      Above cal. range

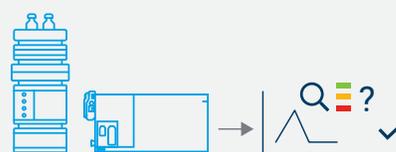
*Reduce injection volume*



Acquisition      Within cal. range

Next sample

The above calibration range function detects if a sample is outside of the calibration range. If so, it automatically reinjects the sample with less volume.



Fast LC method target detected



Acquisition      Standard LC method confirmation

Next sample

The fast screening function processes samples with incredible speed. If a target analyte is detected with a fast screening method (short LC gradient), an analytical method (standard gradient) is run on that sample automatically. If the target isn't detected, the system skips to the next sample.

### Reduce your lab's environmental impact with sustainability-driven innovations

Sustainability is transforming the way researchers and scientists approach products, technologies, processes, and supply chains. The key to progress? Continuous innovation.

Agilent liquid chromatography/mass spectrometry instruments are designed to conserve resources and reduce your lab's carbon footprint. We have also partnered with My Green Lab to have our instruments independently audited for the Accountability, Consistency, and Transparency (ACT) label.



My Green Lab is a nonprofit organization dedicated to improving the sustainability of laboratories worldwide.



## Reduce maintenance time by 92% with Agilent VacShield

Maintaining your LC/TQ has never been so easy. VacShield lets you remove the capillary and run the cleaning cycle in as little as 30 minutes, compared to six hours or more with venting and disassembly. So, you can spend more valuable lab time focusing on sample analysis—like large scientific population studies.

Procedure	Time without VacShield	Time with VacShield
Cool down to acceptable temperature	15 min	Not needed
Break vacuum and leak air into the instrument	15 min	Not needed
Remove and clean ion injector capillary	20 min	20 min
Power on and pump down	300 min (5 hours)	Not needed
Check tune or autotune instrument	10 min (Checktune) 45 min (Autotune)	10 min (Checktune) 45 min (Autotune)
<b>Total</b>	<b>360 to 395 min (6.0–6.6 hours)</b>	<b>30 to 65 min (0.5–1.1 hours)</b>



### Put our insight to work for you

CrossLab is an Agilent capability that integrates services and consumables to support workflow success, improve productivity, and enhance operational efficiency. In every interaction, we strive to provide insight that helps you achieve your goals.

Learn more about CrossLab at [www.agilent.com/crosslab](http://www.agilent.com/crosslab)

# Advance your lab, from sample preparation to insight

Instrument workflows for targeted PFAS and multi-omics analysis include sample preparation, HPLC instrument, and software, as well as quant and reporting tools.



## PFAS

The sensitivity, robustness, and reliability of the 6495 LC/TQ make it ideal for analyzing general and regulated PFAS targets.

### Sample preparation

- Agilent Bond Elut PFAS WAX solid phase extraction (SPE) cartridges



### Separation

- Agilent 1290 Infinity II LC System
- Agilent InfinityLab PFC-free HPLC conversion kit
- Agilent ZORBAX 300Extend-C18 column



### Method tools

- Agilent PFAS MRM Database for triple quadrupole LC/MS



### Detection

- Agilent 6495 triple quadrupole LC/MS



### Software

- Agilent MassHunter quantitative analysis software
- Agilent MassHunter Profinder
- Mass Profiler Professional software



## Targeted multi-omics

Ideal for targeted workflows, the 6495 LC/TQ addresses the challenges of metabolomics, lipidomics, proteomics, and genomics research.

### Sample preparation

- Agilent Bravo metabolomics sample preparation platform
- Agilent Captiva EMR-Lipid



### Separation

- Agilent 1290 Infinity II LC System
- Agilent ZORBAX 300Extend-C18 column



### Method tools

- HILIC Metabolite dMRM database
- Biocrates AbsoluteIDQ p180 kit
- MxP Quant 500 Metabolomics dMRM Database and Method



### Detection

- Agilent 6495 triple quadrupole LC/MS



### Software

- Agilent MassHunter quantitative analysis software
- Agilent MassHunter Profinder
- Mass Profiler Professional software



# Unleash the power of every Agilent LC/TQ system

MassHunter acquisition software for LC/MS systems provides powerful instrument control and data acquisition. Instrument and method setup are fast and easy, with automated tuning for straightforward, reliable operation. With its intuitive design and easy-to-access instrument-specific features, MassHunter acquisition software lets you focus on sample analysis, not instrument setup.

- Reduce the need for training. MassHunter acquisition software is used across all Agilent 6400 Series triple quadrupole LC/MS systems.
- Meet data integrity standards. Securely acquire, process, report, and store data in compliance with FDA 21 CFR Part 11, EU Annex 11, GAMP5, ISO/IEC 17025, and EPA 40 CFR Part 160.
- Maximize instrument uptime with intelligent maintenance feedback.
- Save method development and high-throughput screening time by importing worklists from spreadsheets.
- Seamlessly optimize ion source parameters and MRM transitions by infusion, flow injection, or chromatographic separation.
- Effortlessly tune the instrument to its peak performance using SWARM autotune.



## Native Skyline integration and automation

MassHunter 12 integrates with Skyline automation—allowing you to easily optimize analysis of peptides and small molecules, set up studies, and perform external data analysis.



## Make data management smarter, simpler, and safer

Traditional data management systems are error-prone and burdensome, because each instrument's data must be managed individually and manually. Partner with Agilent to accelerate your transition to a networked model, and bring these advantages to your lab:

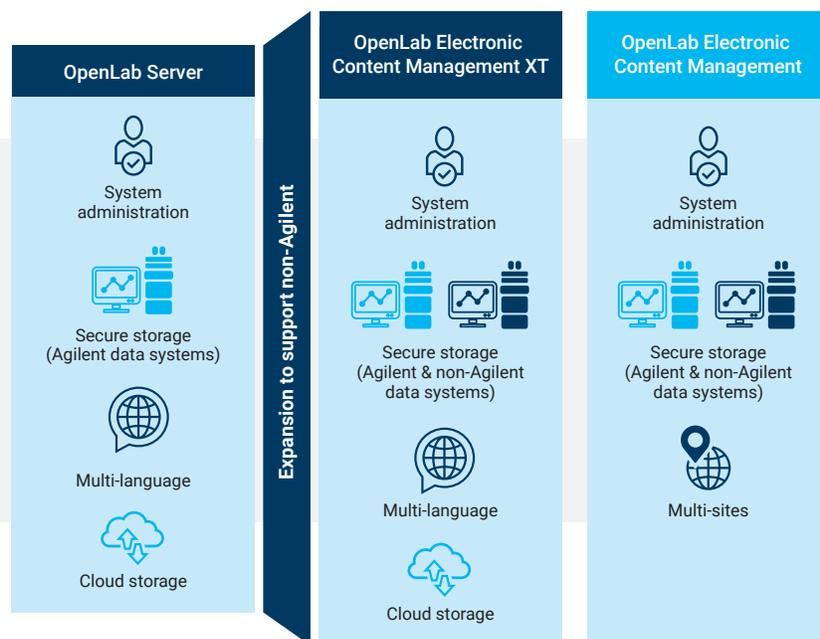
- Connectivity. Instrument integration makes it easy to collect, organize, and secure data.
- Efficiency. Collaborate and find the right information to answer questions quickly, and save both time and money when updating instruments and software.
- Security. Employ and enforce data integrity strategies while minimizing the risk of data breach or loss.

The Agilent approach to data management provides a single point of access to data generated from instruments, data systems, and lab software. What's more, all of this integration happens behind the scenes. Your lab staff does not have to change the way they work or how they interact with their software.

With access to data from a single source, analysts can collaborate without compromising data integrity, and create consistent processes for workflows such as method rollouts. Information quality, information sharing, and efficiency can improve dramatically as well.

### Flexible solutions for all data management

Overcome the limitations of ad hoc data management with a range of integrated, centralized options that can support instrument data in all formats.



## Maximize your LC/MS efficiency with Agilent InfinityLab

Agilent InfinityLab liquid chromatography instruments, columns, and supplies are designed to work together to provide efficiency gains that help you get more done and reduce operation costs.

### InfinityLab LC instruments

From routine analysis to cutting-edge research, the Agilent InfinityLab LC series offers a choice of HPLC and UHPLC systems to suit your application and budget.

### InfinityLab LC columns

With three particle sizes and 20 chemistries, Agilent InfinityLab Poroshell 120 LC columns provide a range of selectivity, making your method development fast and easy.

### InfinityLab LC supplies

The small parts of your workflow can make a big difference in the quality of your results. Agilent InfinityLab supplies are designed to improve the efficiency of daily tasks.



Learn more:

[www.agilent.com/chem/intelligence-that-inspires](http://www.agilent.com/chem/intelligence-that-inspires)

Buy online:

[www.agilent.com/chem/store](http://www.agilent.com/chem/store)

Get answers to your technical questions and access resources in the Agilent Community:

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