



Agilent LC and LC/MS Purification Solutions

Purely better compound purification



The Measure of Confidence



Agilent Technologies

PURELY BETTER SOLUTIONS FOR COMPOUND PURIFICATION

Agilent Technologies offers the most flexible portfolio of affordable solutions for sample purification by liquid chromatography. No matter what scale of LC purification you are working at, Agilent has high-performance instrumentation, columns, software and services that ensure maximum sample recovery and purity. And because it's from Agilent, you get everything you expect from a chromatography leader with over 40 years of innovative contributions to LC technology.

Easy and secure

The Agilent 971-FP Flash Purification System is a dedicated, high-throughput, high-recovery system for confident sample purification.

- Rapid setup – UV lamp requires no warm-up time
- Easy “6-click” operation for automated sample processing
- Secure compound recovery with no loss of sample

Flexible and affordable

The Agilent 218 Purification System is a highly flexible and affordable binary gradient system that delivers excellent flow precision and gradient reproducibility.

- Broad flow range from 1 to 200 mL/min made possible by exchangeable pump heads
- Extended dynamic UV detection range up to 80 AU
- Wide application range, including biological samples

Intuitive and accurate

The Agilent 1260 Infinity Analytical-Scale Purification System is an intuitive, easy-to-use solution for highest compound recovery and purity.

- Analysis and purification from UHPLC to preparative LC/MS using one simple yet powerful software package
- Automatic delay calibration ensures maximum recovery and purity
- 100 percent bio-inert solution with a completely metal-free flow path

Flexible and rugged

The Agilent 1260 Infinity Preparative-Scale Purification System can be tailored to meet individual needs for workflow and throughput, and is renowned for its reliability and robustness.

- Flexible configurations for purification of micrograms to milligrams of pure product
- Automatic delay calibration and multiple detectors facilitate maximum recovery and purity
- Rugged scaleup from analytical to preparative scale

Capable and efficient

The Agilent SD-1 and SD-2 Purification Systems offer an unmatched range of capabilities, delivering high flow rates at high pressure for maximum efficiency.

- Up to 1.2 L/min flow for bench-top production applications
- Interactive software for seamless integration in engineering workflows

	Analytical		Semipreparative		Preparative		Pilot		
Purification range	Micrograms	Milligrams		Grams			Multiple Kilograms		
	µg	5 - 19 mg	20- 80 mg	120-240 mg	80-320 mg	280 mg - g	500 g - Kg	Multi Kg	Multi Kg +
Agilent 1260 Infinity Analytical Scale	0.1 - 10 mL/min								
Agilent 971-FP		2 - 150 mL/min							
Agilent 1260 Infinity Preparative Scale	1 - 100 mL/min								
Agilent 218	1 - 25 mL/min		100 mL/min		200 mL/min				
Agilent SD-1	1 - 200 mL/min						500 mL/min	800 mL/min	
Agilent SD-2		20 - 200 mL/min				800 mL/min		1200 mL/min	
Column I.D.	4.6 mm	½ inch (12.7 mm)	1 inch (25.4 mm)	1 ½ inch (38.1 mm)	2 inch (50.8 mm)	3 inch (76.2 mm)	4 inch (101.6 mm)	6 inch (152.4 mm)	8 inch + (202.3 mm)

Flow range extensions made possible by exchangeable pump heads.



Agilent 971-FP Flash Purification System

PAGE 4



Agilent 218 Purification Systems

PAGE 5



Agilent 1260 Infinity Analytical-scale Purification Systems

PAGE 6



Agilent 1260 Infinity Preparative-scale Purification Systems

PAGE 7



Agilent SD-1 Purification Systems

PAGE 8



Agilent SD-2 Purification Systems

PAGE 9

PURIFY SAMPLES QUICKLY, EFFICIENTLY, AND AT LOWER COST

Designed with chemists in mind, Agilent's 971-FP Flash Purification System is a dedicated, high-throughput, high-recovery system for confident sample purification at the drug discovery phase.

Rapid setup

The Agilent 971-FP System arrives ready to run your method. It's pulsed Xenon lamp requires no warm-up, saving 10 minutes setup time, while its unique bubble detector minimizes solvent priming. In addition, our unique "Guide Me" feature eliminates complex method development and helps you choose the right conditions for effective purification.

Easy "6-click" operation

Just six quick clicks per sample are all you need to set up purification methods and process samples automatically. Once the run has started, you can easily make changes using the built-in touch screen or front panel keypad.

Secure compound recovery

Sample-saving features eliminate the sources of sample loss, helping you stay on schedule. You can also select up to seven UV wavelengths to monitor compounds eluting simultaneously at the best sensitivity. Compounds without a chromophore can be detected with Agilent's optional 385-ELSD (Evaporative Light Scattering Detector).

Best of all, the easy-to-use, open-access 971-FP allows a large team to work independently – improving productivity and accelerating the purification and recovery of drug candidate compounds.



With its sample-saving features and intuitive "6-clicks" programming, Agilent's 971-FP System shortens the long, cumbersome process of separating reaction products.



Optimal performance with maximum compound recovery – Agilent cartridges and supplies deliver efficient flash purification.

EXCELLENT FLOW PRECISION AND GRADIENT REPRODUCIBILITY WITHIN REACH OF YOUR BUDGET

The Agilent 218 Purification System is a highly affordable binary gradient system with the flexibility to adapt to your purification needs as they change over time.

Broad range of flow rates

High performance pumps deliver precise flow rates up to 10 mL/min at 600 bar or up to 200 mL/min at 230 bar to achieve reproducible separations every time.

Wide range of applications

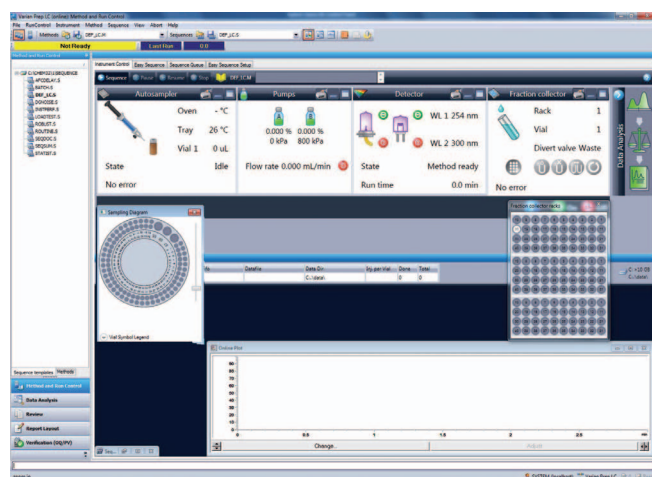
Choose from seven preconfigured solvent delivery systems, including pump heads, valves and injectors, which make the Agilent 218 Purification System ideal for all common laboratory-scale purification processes.

Highly flexible

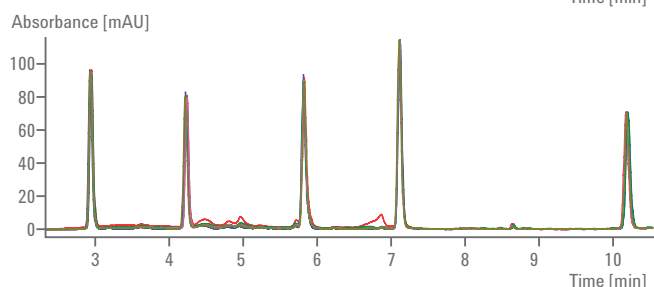
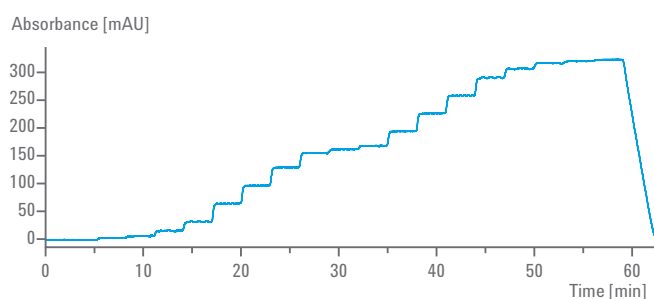
As your purification needs change, it's easy to extend the capabilities of your system. Simply interchange the pump heads, tubing, mixers or other accessories to meet the new challenge. It's easy to upgrade, too. If your purification needs demand binary, ternary or quaternary gradient capability, just add an extra pump — there's no need to invest in a whole new system.



The Agilent 218 Purification System is also available as a bio-compatible version with PEEK or titanium fittings for applications requiring acidic mobile phases or that need to be free of metals such as iron, chromium or vanadium.



Agilent laboratory-scale purification systems are controlled through Agilent OpenLAB CDS ChemStation Edition — a single software for analytical and preparative work.



Step gradient (upper trace) and overlay of five injections demonstrate the precision and reproducibility of the Agilent 218 Purification System's solvent delivery, running at 10 mL/min and equipped with 100 mL pump head.

ACHIEVE HIGHEST PURITY AND RECOVERY THROUGH ONE SIMPLE YET EASY-TO-USE SOFTWARE PLATFORM

The Agilent 1260 Infinity Analytical-scale LC/MS Purification System is an indispensable tool in your purification workflow – on one system with one software you can perform both analytical UHPLC and preparative LC/MS.

Analyze and purify on one software platform

A single, intuitive software is all you need to run complex analytical UHPLC separations and then scale-up to LC/MS purification. The Agilent OpenLAB CDS ChemStation Edition software includes a graphical fraction preview tool that helps you to visualize the optimization of all relevant fraction trigger parameters based on previously acquired data.

Maximize purity and compound recovery

The Agilent 1260 Infinity Analytical-scale Purification System handles flow rates from 100 $\mu\text{L}/\text{min}$ to 10 mL/min at pressures up to 600 bar, making it the system of choice for compound purification in the nanogram to low milligram range on columns with internal diameters between 2.1 and 9.4 mm.

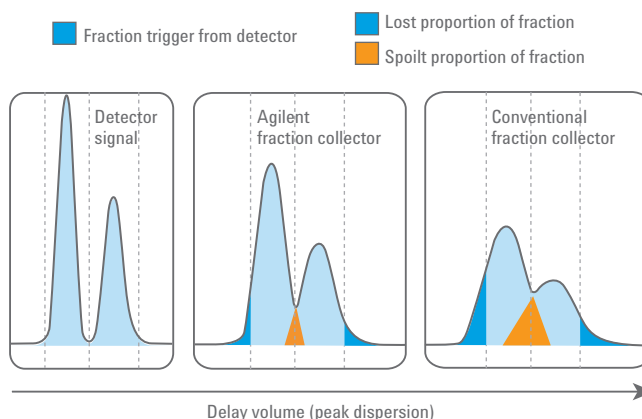
Agilent's fraction delay sensor technology determines fraction delay volumes automatically and ensures that fractions are collected just-in-time without the need to collect extra volume to be on the safe side.

Time, peak and mass-based fraction collection – or any combination of these – are available and can be triggered by the detector of your choice. Intelligent real time data processing for instantaneous and precise fraction collection is guaranteed through the control area network (CAN).

With a completely metal-free flow path, the Agilent 1260 Infinity Bio-inert LC System with fraction collector is the ideal solution for protein purification.



Based on Agilent's industry-leading liquid chromatography platform, the Agilent 1260 Infinity Analytical-scale LC/MS Purification Systems can be tailored to your sample and detection requirements and are supported by a multitude of application examples.



The Agilent 1260 Infinity Fraction Collectors are designed for lowest delay volumes to avoid peak dispersion and carry-over between fractions, assuring highest recovery and purity for your fractions.

MAXIMIZE YOUR PURIFICATION FLEXIBILITY WITH RUGGED ANALYTICAL-TO-PREP SCALE-UP

The Agilent 1260 Infinity Preparative-scale LC/MS Purification System offers you ultimate flexibility – use it as a workhorse for automated, high-throughput applications, or as a method scale-up solution for optimizing resolution and recovery.

Purify milligrams to grams of material

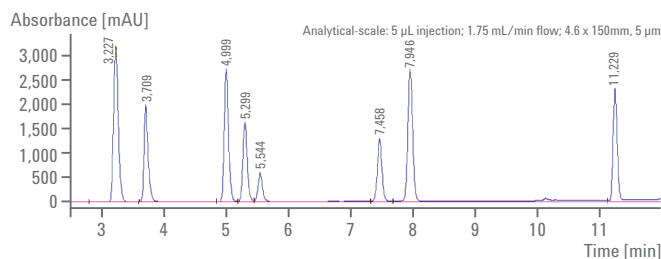
The Agilent 1260 Infinity Preparative-scale LC/MS Purification System is ideal for purification when you have milligrams to grams of starting material. The system delivers high flow rates up to 100 mL/min and is a perfect match for columns with internal diameters from 9.4 to 50 mm.

Benefit from ultimate flexibility

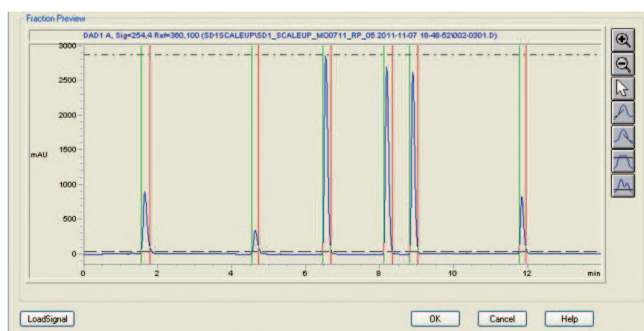
The modular design of the Agilent 1260 Infinity Preparative-scale LC/MS Purification System offers you outstanding flexibility in terms of application and bench space. One of the major advantages of this modularity is the ability to achieve shortest possible fluidic connections. Using optimized tubing diameters for different flow rates results in smallest delay volumes, minimal peak dispersion and lowest overlap between fractions. And, if your purification needs change, you can easily adapt or upgrade the system to meet the new workflow or throughput requirements.

Robust scale-up from analytical to prep

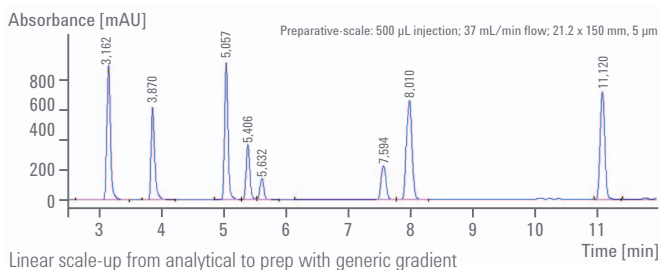
As the market and technology leader in LC instrumentation Agilent clearly differentiates itself in terms of product quality, robustness and ease of use. The Agilent fraction delay sensor technology guarantees just-in-time peak collection regardless of your instrument configuration. Temperature control of autosamplers and fraction collectors prevents deterioration of labile compounds – even during prolonged storage.



The Agilent 1260 Infinity Preparative-scale LC/MS Purification System can be configured with UV and MS detectors and multiple fraction collectors to meet the needs of the most demanding applications.



Multiple collection modes are possible and the fraction preview in Agilent OpenLAB CDS ChemStation Edition makes it easy to determine the correct trigger parameters.



ACHIEVE HIGH QUALITY HPLC SEPARATIONS AT THE WIDEST RANGE OF FLOW RATES

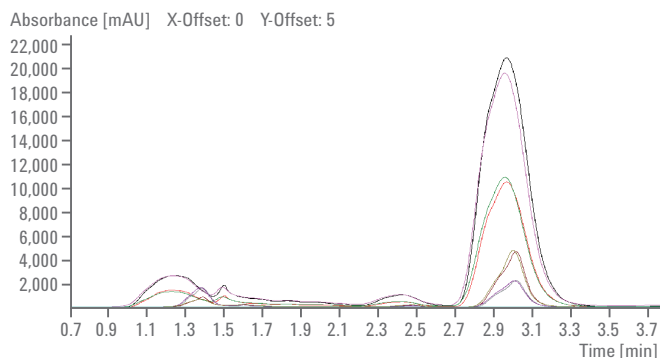
The Agilent SD-1 Purification System delivers accurate and reproducible solvent flow and elution gradients for high quality HPLC separations – time after time.

Expandable flow rate range

The Agilent SD-1 Purification System delivers pulse-free flow at high pressures and at the widest range of flow rates available. The configuration of choice for analytical and preparative applications offers a flow range up to 200 mL/min. Equipped with three additional interchangeable pump heads the system's flow range can be expanded up to 800 mL/min, facilitating isocratic and binary gradient elution with an unmatched power range for pilot-scale purification.

Straightforward scale-up

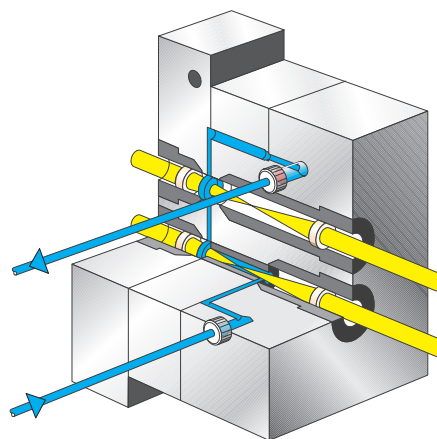
With the Agilent SD-1 Purification System you can optimize your preparative method quickly and inexpensively on a small diameter column. When you are satisfied with the method, simply turn the optional valve to divert the flow to the prep column and set a new flow rate for instant scale-up – even for the most challenging gradient separations. With a high pressure capability of 600 bar, the Agilent SD-1 Purification System is ideal for scale-up from small particle columns.



Achieve up to 80 AU when moving from analytical to preparative operation, without changing the dual-path flow cell, as shown by the dynamic range from 2 to 21 AU for a 5-hydroxytryptophan sample.



The Agilent SD-1 Purification System achieves high quality HPLC separations at the widest range of flow rates.



The dual-path flow cell in the Agilent 325 UV detector maximizes sensitivity for analytical applications while preventing overloaded "flat-top peaks" during preparative runs. As its name suggests, the dual-path cell is two flows cell merged into one!

MAXIMIZE YOUR PURIFICATION EFFICIENCY WITH HIGHER FLOW RATES FOR PILOT-SCALE AND PRODUCTION

The Agilent SD-2 Purification System offers maximum purification efficiency at higher solvent flow rates and delivery pressures for pilot-scale purification or small-scale production.

Move to the next level of preparative LC

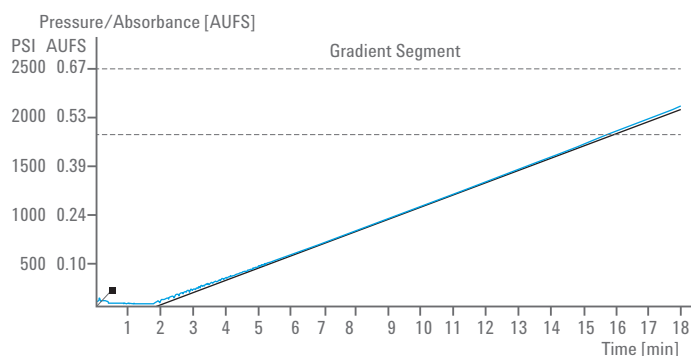
The Agilent SD-2 Purification System is the most compact bench-top system, enabling you to scale-up your separations to pilot scale or even small-scale production. A set of three pump heads are available with different sizes and configurations to facilitate flow rates up to 200, 800 or 1200 mL/min. Combined with Agilent Load & Lock columns of 50 to 200 mm internal diameters, the SD-2 system gives you an almost unmatched range of purification possibilities.

Boost your purification productivity

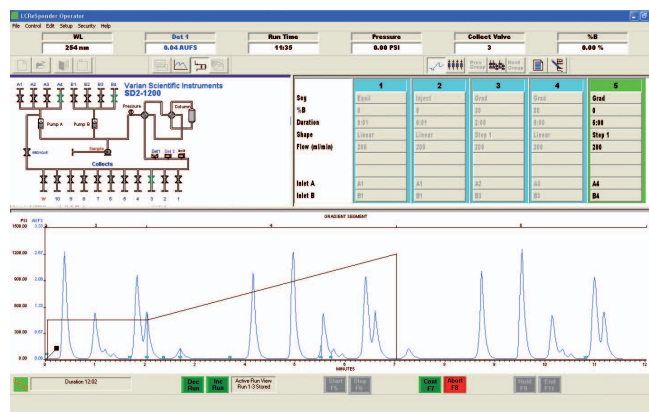
Agilent's LC ReSponder software can help you to boost your purification productivity. Powerful features are available for system control and you can monitor all process parameters such as sample injection, solvent selection, gradient formation and fraction collection on a single screen. At the same time the Agilent LC ReSponder software helps your laboratory to conform to cGMP and 21 CFR Part 11 regulations – optional IQ/OQ documentation is also available as part of the package.



The Agilent SD-2 Purification System with Agilent LC ReSponder software incorporates comprehensive safety features such as vapor sensing, pressure alarms, solvent tank level monitoring, and temperature control of solvents and column.



Even at high flow rates of greater than 500 mL/min, the SD-2 system delivers excellent linear gradient reproducibility profiles.



Agilent LC ReSponder software gives you total system control, support for compliance to 21 CFR Part 11 compliance and full documentation – including the capability to transfer data to external databases such as corporate historian depository systems.

HIGHEST SAMPLE LOADING FOR RELIABLE PURIFICATION OF LARGE AMOUNTS AT LOWER COST

Agilent's line of preparative liquid chromatography columns offers the highest sample loading among major commercial preparative columns for cost-effective and reliable purification of target compounds.

Superior sample loading

Agilent Prep LC columns are available with C18 and bare silica packing material, offering high carbon load and large surface area. This allows the maximum amount of sample that can be placed onto the column without reducing selectivity. Highest sample loading is possible at both low and high pH, which helps increase product yield and system throughput.

Easy, robust scale-up

A variety of dimensions lets you develop methods on the Prep LC columns easily. You can purify microgram to gram quantities of sample with consistent results, making method transfer and scale-up simple, robust and predictable.

Prepacked columns

Agilent offers a broad range of prepacked columns with internal diameters from 4.6 to 100 mm and lengths from 50 to 250 mm, facilitating easy scalability for rapid method development.

Load & Lock columns for flexibility

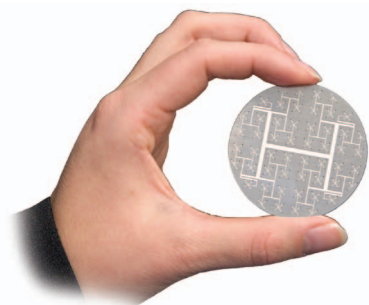
When you purify large quantities of material on a routine basis and frequently use different chemistries, Agilent Load & Lock columns combine excellent packed bed stability with enhanced flow distribution to deliver the highest quality purification possible with maximum speed, flexibility and ease of use.



The Agilent Prep LC columns provide the highest sample loading (by mass) in the industry — so you can purify more sample in less time.



A complete range of Agilent Load & Lock columns delivers versatile solutions for high performance, high throughput and high yield preparative and process purifications.



A proprietary fluid/sample distribution plate at the inlet diffuses the sample more efficiently across the full bed surface, providing exceptional separation efficiency, increasing loadability by up to 20% and minimizing back pressure and peak broadening.

PURELY BETTER SERVICE AND SUPPORT FOR YOUR AGILENT PURIFICATION SOLUTION

Recognized as “Best in Class,” Agilent has been building and maintaining the instruments you count on for more than 40 years. With service center operations in 65 countries, a global dispatch system to optimize coverage by our top rated service professionals, and call centers ready to assist with both Agilent and non-Agilent instruments, you can trust Agilent to provide the extended protection and personalized support that leads to more efficiency and greater productivity for your laboratory.

Agilent Advantage Service and Support

Agilent provides customer-focused products and services for all stages in an instrument’s lifecycle, from installation and upgrade to operation and repair. Whether you need support for a single instrument or a multi-lab, multi-vendor operation, Agilent offers an Advantage service solution to help you solve problems quickly, increase your uptime and optimize your lab’s resources.

Agilent Compliance and Functional Verification Services

Count on Agilent to provide the proof of calibration or system qualification you need to support your ISO 17025 or GLP/GMP quality initiatives. In fact, Agilent has been ranked number one in compliance by independent survey since 1995.

Agilent Enterprise Edition

Streamline your compliance procedures across your entire company with a single qualification protocol that is automated, paperless and compatible with chromatography instruments from all leading vendors. Save time and money with Agilent Enterprise Edition, featuring the Agilent Compliance Engine, a fully automated software program.

Agilent Remote Advisor

Remote Advisor from Agilent is a secure remote instrument monitoring and diagnostics feature available in all Agilent Advantage service plans. Regardless of what chromatography data system you use, Remote Advisor reduces your total laboratory costs by solving problems in real-time, and providing the information you need to increase instrument availability and utilization.

Agilent Software Service and Support

Agilent’s Professional Services organization facilitates process and productivity enhancements using software and informatics products and technology. Partner with Agilent consultants and let us help you develop comprehensive software and support strategies that ensure continued system uptime and maximum productivity.

Laboratory Qualification and Testing Solutions

Count on Agilent to provide the system qualification services or proof of calibration that you need to support your GLP/GMP or ISO/IEC 17025 quality initiatives. In fact, Agilent has been ranked #1 in Compliance since 1995. With over 100,000 successful qualification deliveries and over a decade of practical experience in quality testing, you can trust Agilent to deliver confidence in your analytical results.



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USA and Canada

1-800-227-9770

agilent_inquiries@agilent.com

Europe

info_agilent@agilent.com

Asia Pacific

inquiry_lsca@agilent.com

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