

AB SCIEX
Triple Quad™ 5500 System

Above and
beyond the
competition

AB Applied Biosystems | MDS Analytical Technologies



Above and beyond your expectations

The AB SCIEX Triple Quad™ 5500 system is today's most sensitive triple quadrupole mass spectrometer. Designed to deliver the highest level of sensitivity and robustness for even the most complex matrices, the Triple Quad 5500 exceeds the performance required by even the most demanding DMPK and ADMET studies and excels at multi-component quantitation required by environmental, targeted quantitative proteomics, clinical research, and food and beverage applications. Built from the ground up on new, fast eQ™ electronics, the system combines new and improved patented technologies with a powerful new generation of Analyst® software. The result is a robust, high throughput platform and a new level of quantitative performance in a reliable, easy-to-use system.

AB SCIEX TRIPLE QUAD™ 5500

Introducing the AB SCIEX Triple Quad™ 5500 System

Above and beyond the competition—the most sensitive, accurate, and reliable triple quad. Again.

The world's most sensitive
triple quadrupole. Again.

One Touch Productivity

Powerful, workflow-driven software ties everything together to deliver a new benchmark in efficiency, throughput, and productivity to let you take full advantage of all the power that the AB SCIEX Triple Quad™ 5500 system puts at your fingertips. And the latest version of industry-standard Analyst® Software utilizes the intelligent *Scheduled* MRM™ algorithm to make the method setup of over 1000 analytes in a single LC analysis straightforward and simple while still generating exceptional quantitative results.

One Touch Productivity Solutions

DiscoveryQuant™ Software



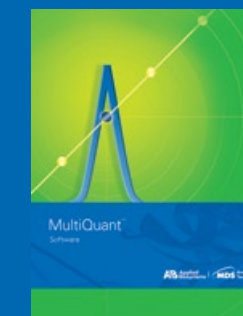
DiscoveryQuant™ Software improves the speed and efficiency of drug candidate analysis for high-throughput early ADME (absorption, distribution, metabolism, and excretion). The software's automated tools, information-sharing capabilities, and assay setup features enable you to gain more information on a higher number of potential compounds, significantly improving your lab's ability to broaden its pharmaceutical pipeline.

Cl liquid® Software



Cl liquid® Software's pre-configured iMethod™ tests and simplified user interface makes it easier to perform routine Food, Environmental, Forensics and Clinical Research testing. With a simple four-step workflow, pre-configured methods, built-in system suitability tests, and automatic reports generated according to regulatory requirements, Cl liquid/MS for both simplifies the use and accelerates the adoption of LC/MS/MS for routine testing. The available MRM catalogues, containing the optimized instrument parameters for thousands of compounds can also be used to save the time and cost associated with method development.

MultiQuant™ Software



MultiQuant™ Software is a powerful and easy-to-use quantitation package that processes MRM data for quantitative information. The software easily handles large data sets consisting of both large numbers of MRM transitions and patient samples, with an emphasis on the requirements for processing protein/peptide quantitative workflows. Results can easily be exported to other software packages, or use the software's flexible reporting features to generate custom reports.

Analyst® Software



As the world's most commonly used LC/MS/MS instrument control software platform, Analyst® software provides state of the art functionality for instrument control, data analysis and reporting. The latest version builds on this legacy by providing new features that enhance both performance and ease of use.

The AB SCIEX Triple Quad™ 5500 system is next-generation technology from the leaders in mass spectrometry. Engineered from the ground up utilizing the lessons learned in producing our industry standard triple quadrupole line of mass spectrometers, the Triple Quad 5500 system builds on our legacy with exciting new performance enhancements. Ultra-fast scan speeds improve precursor ion and neutral loss scan performance allowing the duty cycle to match the time scale required by fast LC. And the *Scheduled MRM™* algorithm maximizes dwell time without sacrificing quantitative accuracy and precision to allow the monitoring of even more MRM transitions than ever thought possible while still maintaining the quantitative performance you have come to expect from Applied Biosystems/MDS Analytical Technologies—amazing lower limits of quantitation (LLOQ), superb coefficient of variation, and incredible linear performance across the extended dynamic range, day after day, year after year.

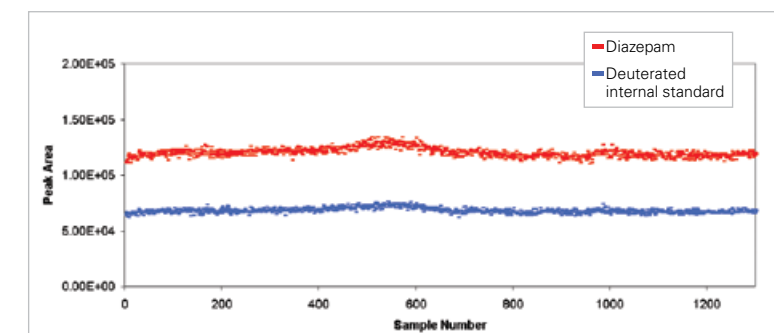


Figure 1. The above figure of 1300 injections of spiked Diazepam in protein-precipitated human plasma demonstrates the industry-leading ruggedness, reproducibility and reliability of the AB SCIEX Triple Quad™ 5500 system. The very low % CV of 3.3 for the calculated Diazepam peak area shows the system's ability to generate consistent quantification results day in and day out, week after week, month after month.

Cutting edge technology and reliable too

Due to our long legacy as the industry leader, our customers expect robust systems that handle even the most difficult matrices with ease. You expect maximum uptime and a system that can reliably handle

thousands of samples per week, providing maximum productivity. The Curtain Gas™ interface and new QJet® 2 ion guide have been designed to improve on our already industry-leading robustness. With reliability designed into the new system, new levels of dependability and consistency are certain.

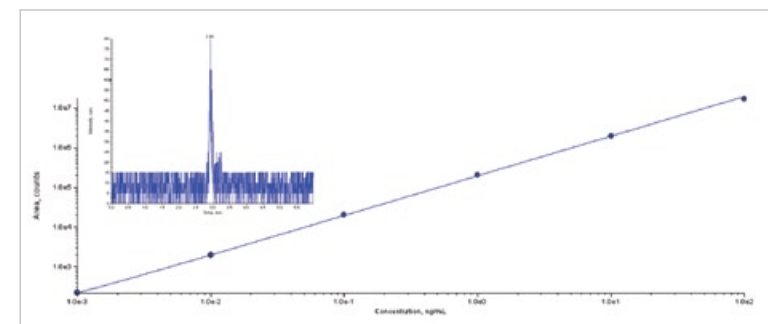


Figure 2. The bromocriptine calibration curve demonstrates the linearity over 5 orders of magnitude dynamic range. The inset is the low standard, 5 fg of bromocriptine on column, from this curve. With a S/N of 10:1 and % CV of 3 for the three replicates this example shows excellent sensitivity and quantitative performance.

Industry-standard Analyst® software

By uniting power and ease, the latest version of industry-standard Analyst® software with the intelligent *Scheduled MRM™* algorithm delivers a new benchmark in efficiency, throughput and productivity. For dedicated quantitative applications such as pharmaceutical bioanalysis, biomarker analysis, pesticide and pharmaceutical personal care product screening, this easily set up algorithm enables the measurement of thousands of analytes in a single LC analysis that produces exceptional quantitative results for every study. Maximize sensitivity, precision, and accuracy of quantitative results with the Triple Quad 5500 system running Analyst software and improve your lab's performance. Whether you are an expert or a novice, the software's flexible design enables sophisticated analytical results.

The future path of triple quad technology—the gold-standard for quantitation

The AB SCIEX Triple Quad™ 5500 System combines next-generation technology with the reliability of the world's best-selling triple quadrupole family for unmatched quantitative performance.

Finally, a reliable system with fantastic sensitivity and lightning speed which perfectly complements UHPLC and fast LC to establish productive, time-saving workflows that produce superior quantitative results every day.

AcQuRate™ Pulse Counting Detector

The AcQuRate™ detector is the latest in detector technology combined with a patented pulse overlap correction algorithm, enabling more accurate and precise ion detection over a wide dynamic range. Operating at maximum gain all the time drives the detector into the digital domain, simplifying the elimination of electronic noise and guaranteeing maximum sensitivity with unparalleled accuracy and precision. The best gets even better.

Patented QJet® 2 Ion Guide

Optimized design yields improved ion containment and operates at higher pressures, providing better collisional focusing to enhance ion transmission for ultimate sensitivity. The new design also reduces the gas load, allowing the turbopump to run cooler in its ideal operating range. All this leads to our most reliable system yet and with tool-free maintenance, clean-up is simple and straightforward.

Curved LINAC® Collision Cell

The newly designed Curved LINAC high-pressure collision cell accelerates ions through the collision cell, increasing the speed of analysis and eliminating cross-talk. Improving on the performance of the legendary LINAC collision cell results in shorter transit times across the collision cell, making the Curved LINAC cell an ideal match for UHPLC and high throughput analysis focused on hundreds of analytes. With true collision-induced fragmentation, the new Curved LINAC collision cell generates reliable information-rich, library-searchable MS/MS spectra time after time.

Fast eQ™ Electronics for Fast LC

Next-generation eQ™ electronics enable polarity switching in 50 ms, shorter pause times, faster scan speeds, and faster duty cycles. Now, compounds with vastly different functional groups can be measured in a single pass. The new electronics also provide improved ion containment for better sensitivity and superior detector performance. Ultra-fast and ultra-stable instrumentation means you get the most out of your standard or fast LC to save time and accelerate your research.

Patented Q0 High-Pressure Cell

Q0 collisional focusing. Unique, high pressure collisional focusing technology maximizes transmission of ions for superior sensitivity.

Sources

Turbo V™ ion source enables highest-sensitivity quantitation over a wide range of flow rates with quick-change APCI and TurbolonSpray™ probes. From 50 µL/min to 5 mL/min the Turbo V ion source is the perfect solution for narrow bore, standard bore and UHPLC flow rates, delivering unprecedented desolvation and stability for even the toughest high-flow applications utilized to drive productivity.



NanoSpray® III source is simple to assemble and disassemble, making nanoflow chromatography easy while providing the highest sensitivity and stability. The NanoSpray® III source supports regular and column-packed emitter tips for ultimate chromatographic flexibility and the new camera design allows clear spray visualization that simplifies optimization. Fingertight fittings enable you to change tips quickly so you are up and running in no time.



You invest in our technology—we invest in making you successful

When you choose Applied Biosystems/MDS Analytical Technologies as your partner, you're choosing to work with the leading supplier and developer of mass spectrometry-based technologies. We are committed to staying at the forefront of life science research by providing you with the instrumentation, software and workflows that you need to succeed.

Application support you can depend on

Our mass spectrometry solutions are backed up by the world's most extensive application support organization. With over 150 application scientists worldwide, we are dedicated to answering your technical needs and developing advanced training courses so you get the most out of your systems.

Maximize uptime with a service plan that's right for your organization

Choose from three flexible service plans and a variety of à la carte services for the right level of support for your laboratory's needs and budget. With nearly 2,000 trained service professionals worldwide, Applied Biosystems/MDS Analytical Technologies Global Services provides the highest quality support available for our products and technologies and maintains the staffing levels necessary to provide a rapid and guaranteed response.

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