

Advanced Linear Ion Trap performance, plus outstanding budget sensitivity.

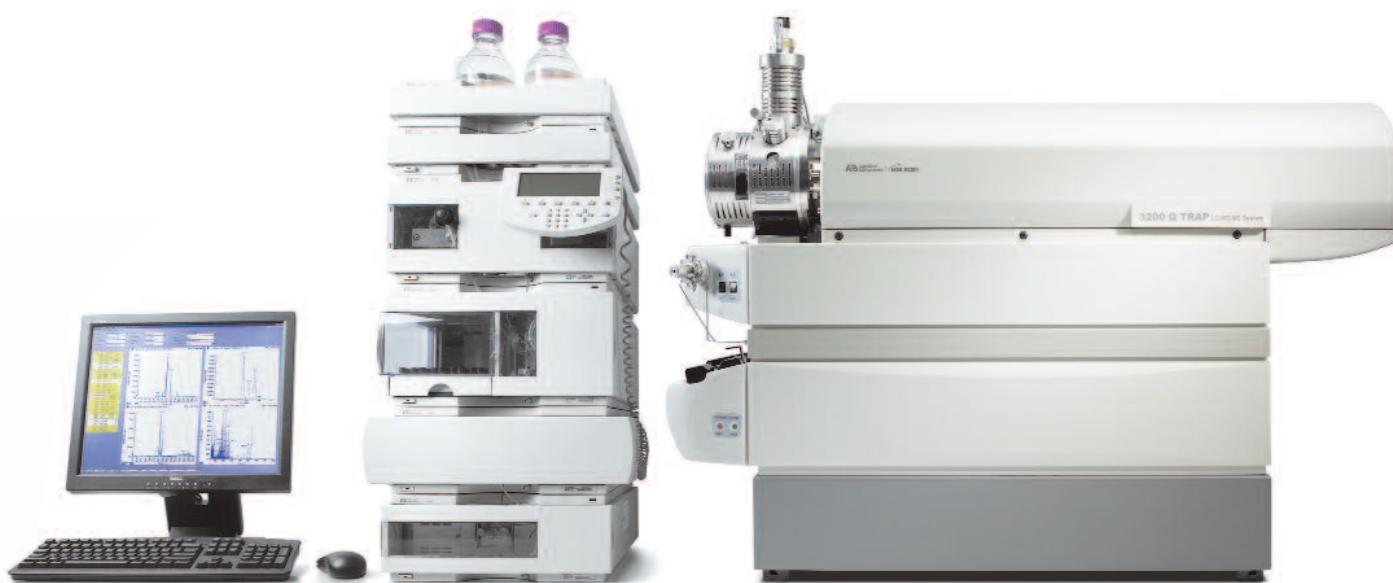


3200 Q TRAP®

LC/MS/MS System

Rewriting the price/performance equation.

The Applied Biosystems/MDS SCIEX 3200 Q TRAP® LC/MS/MS System offers the same powerful, innovative features that you've come to expect from the leader in life science mass spectrometry, and provides outstanding value, bringing true hybrid triple quadrupole/Linear Ion Trap capabilities within the reach of any lab.



3200 Q TRAP® LC/MS/MS System delivers outstanding sensitivity, superior dynamic range, and best-in-class reliability across a wide range of identification and quantitation applications.



Hybrid Triple Quadrupole/Linear Ion Trap sensitivity and ease-of-use, plus triple quad selectivity.

Patented hybrid triple quadrupole/Linear Ion Trap technology takes you far beyond the capabilities of any conventional ion trap, enabling you to screen, identify, and quantitate proteins or small molecules in a single analysis. By combining true triple quadrupole scanning functionality with sensitive linear ion trap scans, you can reduce analysis time and get more information from every experiment.

Versatile, integrated system meets multiple challenges.

The compact benchtop system is a powerful, easy-to-use tool that's rugged enough for continuous high-throughput operation. With intuitive, application-specific software and a full complement of automation features, it fits seamlessly into the workflows of any drug discovery, proteomics, or forensics laboratory.

Expert results—even for non-experts.

From automated methods development to quick, simple ion source changes, the 3200 Q TRAP® system is designed to make it easy for you to get the answers you need, even if you are just getting into mass spectrometry.

Powerful, intuitive software.

Powerful Analyst® and BioAnalyst™ software make getting meaningful results easy. Application specific software automates acquisition and processing to find the answers you need and sort them out from the noise. Automated workflows can find expected or unexpected metabolites and confirm identification as well as provide structural information. Biomarker discovery workflows will identify putative protein biomarkers and quantitate them in a single run. Screening workflows enable multiple component analysis with confirmation as well as quantitation of closely eluting and co-eluting analytes.

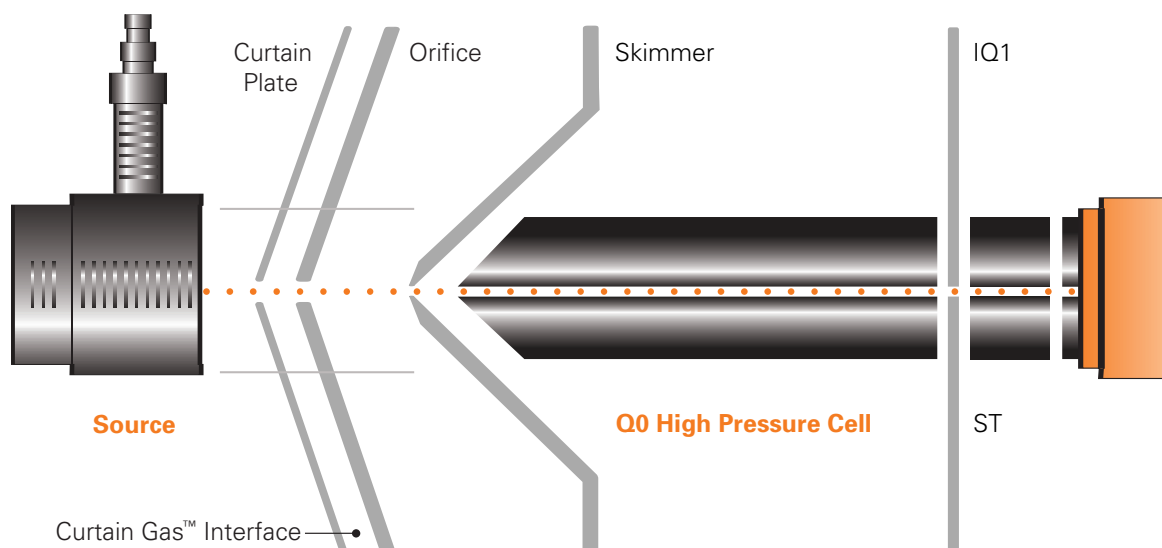
The collage features several key components of the software interface:

- Chromatogram:** A plot of Intensity (cps) vs. Time (min) showing peaks labeled T16, T39, T64, T2, T12, T6, and T55. The y-axis ranges from 1.0e6 to 5.0e6, and the x-axis ranges from 2 to 44 minutes.
- Results Table:** A table with columns: Use, Matches, Mass (avg.), Mass (mono.), Apex Mass, Area, and Start Scan. It lists identified peaks with their corresponding protein and peptide information.
- Software Logos:** Analyst® 1.4 Software Metabolite ID 1.4 and Pro QUANT Software For use with iTRAQ™ Reagents.
- Navigation Menu:** A list of actions including Process data, View results, Create Interrogator Search database, Administer results database, and Celera Discovery System™.

Use	Matches	Mass (avg.)	Mass (mono.)	Apex Mass	Area	Start Scan
5	1	1163.4657	1162.7230	1162.7230	14509.0255	
		Protein	Pept. #	Location	Calc MW	+/-
		ALBU_BOVIN P02	T6	42-51	1162.6234	-0.0996
		516.5397			516.5344	2677.3213
6	1	516.5397	516.5344	516.5344	2677.3213	
		Protein	Pept. #	Location	Calc MW	+/-
		ALBU_BOVIN P02	T38	257-281	516.2908	0.0436
		711.6196			711.3234	661.9544
7	1	711.6196	711.3234	711.3234	661.9544	
		Protein	Pept. #	Location	Calc MW	+/-
		ALBU_BOVIN P02	T2	5-10	711.3664	-0.0430
		631.6272			631.3075	1342.5466
8	1	631.6272	631.3075	631.3075	1342.5466	
		Protein	Pept. #	Location	Calc MW	+/-
		OVAL_CHICK P01	T16	182-196	631.3330	-0.0254
		579.6476			579.3525	1861.2373
9	1	579.6476	579.3525	579.3525	1861.2373	
		Protein	Pept. #	Location	Calc MW	+/-
		OVAL_CHICK P01	T12	123-126	579.3017	0.0508

The advantages of an ion trap and the performance of a triple quad. All in one system.

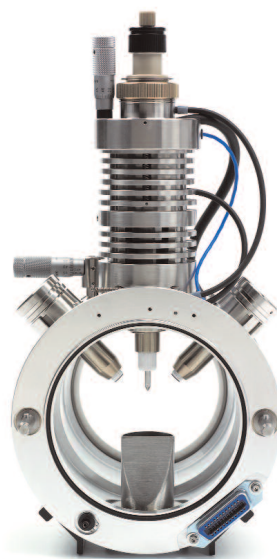
The 3200 Q TRAP[®] LC/MS/MS system takes advantage of several proprietary mass spectrometry innovations to deliver outstanding quantitative and qualitative performance within a single system.



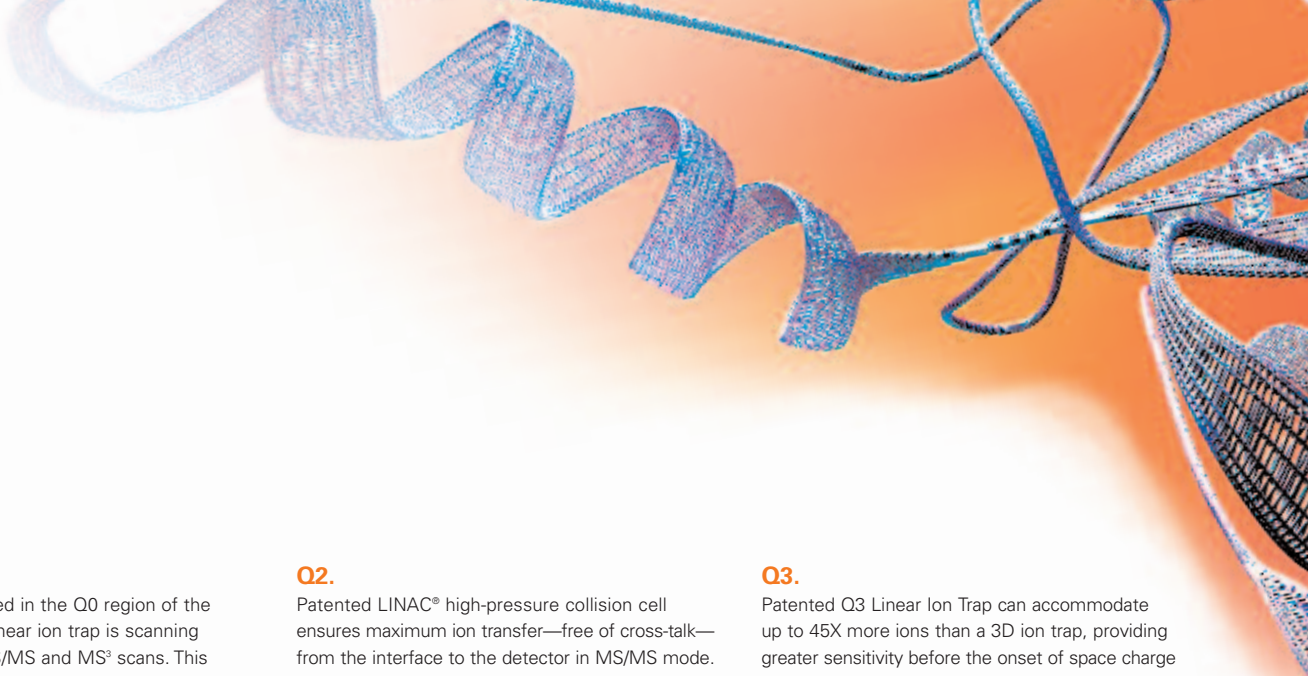
Convenient “plug and play” ion sources.

Rugged, reliable, easily interchangeable ion sources are available for a wide range of applications and flow rates to suit your analysis needs.

Rapid source change-over extends system flexibility with minimum downtime. All temperature, gas, and electrical connections are fully integrated into the source housing—no extra lines to attach, and no lost time. Magnetic connections automatically detect the hardware change and alert the software.



The Innovative Turbo V™ ion source efficiently ionizes compounds and virtually eliminates cross-contamination, even with large sample loads and LC flow rates up to 3 ml/min. Embedded ceramic heater technology and improved gas dynamics contribute to the system's low detection limits, and enable high sensitivity quantitation over a wide range of flow rates. Quick-change TurbolonSpray[®] and APCI probes let you switch between ionization modes in seconds.



Q0 trapping.

Ions can be accumulated in the Q0 region of the system while the Q3 linear ion trap is scanning ions during ion trap MS/MS and MS³ scans. This results in a greatly improved duty cycle, as well as improved sensitivity. Patented collisional focusing technology maximizes ion transmission for superior sensitivity.

Q2.

Patented LINAC[®] high-pressure collision cell ensures maximum ion transfer—free of cross-talk—from the interface to the detector in MS/MS mode. You can reduce MRM dwell times without compromising sensitivity, allowing you to monitor more compounds without any appreciable loss in signal, and enabling simultaneous multi-compound analyses.

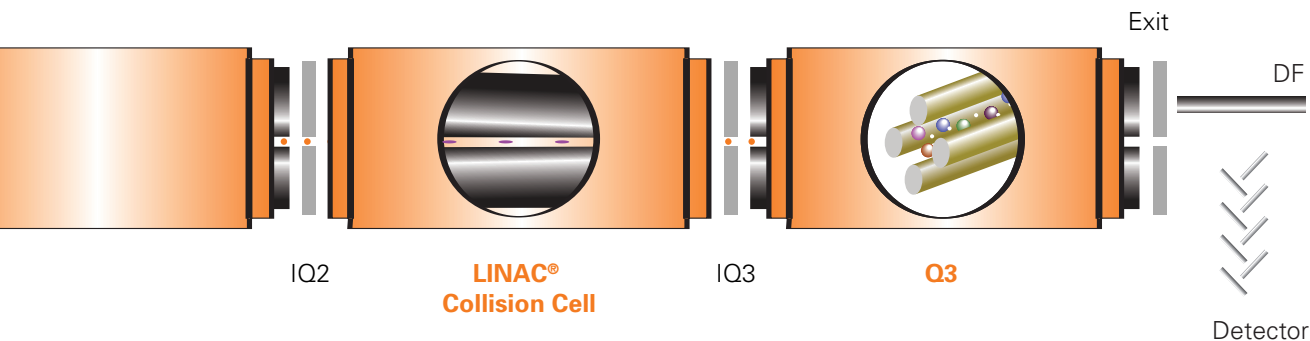
Q3.

Patented Q3 Linear Ion Trap can accommodate up to 45X more ions than a 3D ion trap, providing greater sensitivity before the onset of space charge effects. The longer path gives ions more time to lose energy, further enhancing capture and sensitivity. Higher duty cycle, faster scan time provides more information in less time, and a more thorough investigation of complex samples.

Q1

Q2

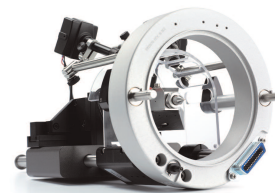
Q3



The optional DuoSpray[™] source contains TurbolonSpray[®] and APCI probes in one housing with computer-controlled switching, allowing use of the optimal ionization technique and conditions for each compound during an LC run, making it an ideal tool for fast method development as well as increasing throughput and data quality.



The optional PhotoSpray[®] source for atmospheric pressure photo-ionization (APPI), expands the range of compounds that can be analyzed. The PhotoSpray source can ionize many compounds that are not easily ionized by ESI or APCI, such as low polarity polycyclic aromatic hydrocarbons (PAH's).



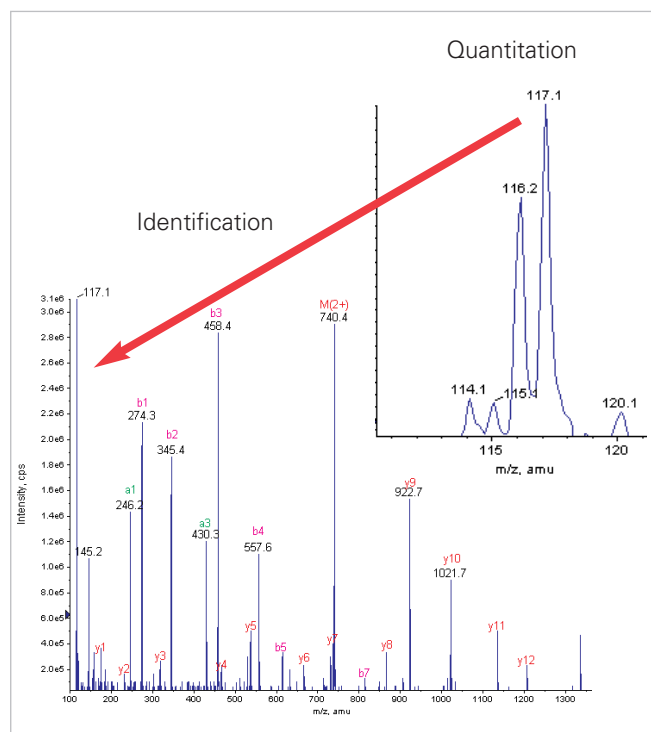
New NanoSpray[®] II source gives you the versatility of discrete nanospray and nanoflow HPLC capabilities using nebulizing gas-assisted MicroIonSpray[®] ion source for low flow work such as protein and peptide analysis. An improved interface permits more efficient transfer of ions from the NanoSpray source into the system, increasing robustness and sensitivity.

Performance that's anything but entry level.

The 3200 Q TRAP® system gives you a level of performance—as well as application versatility—that you won't find in any other system in its price class.

Simultaneous qualitative and quantitative analysis.

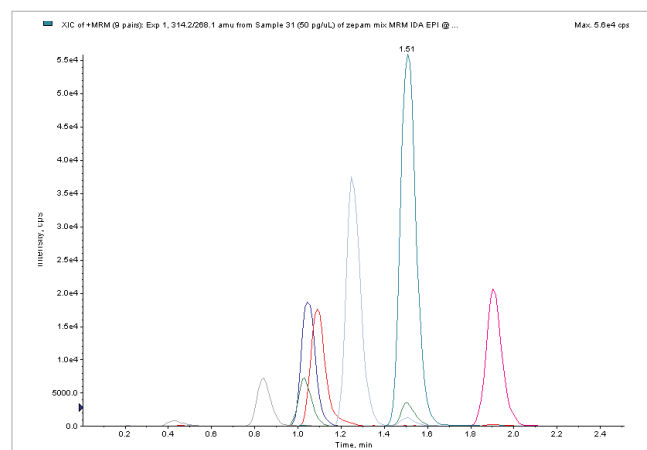
Hybrid triple quadrupole/Linear Ion Trap technology provides the ability to identify and quantitate components from complex samples in a single run. Triple quadrupole specificity and quantitation combine with linear ion trap full scan MS/MS sensitivity for simultaneous qualitative and quantitative results.



The 3200 Q TRAP® system is fully compatible with iTRAQ™ reagents and provides an ideal solution for biomarker discovery and early validation.

Multi-compound analysis.

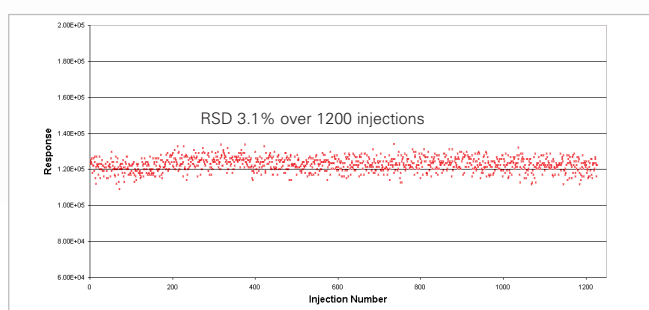
The ability to quantitate multiple components in a single run provides more results in fewer experiments. LINAC® collision cell technology enables fast scanning without compromising performance and Multiple Reaction Monitoring scans provide confident distinction between closely eluting and co-eluting components.



Multi component capabilities enable screening and quantitation for broad classes of compounds, such as benzodiazepines.

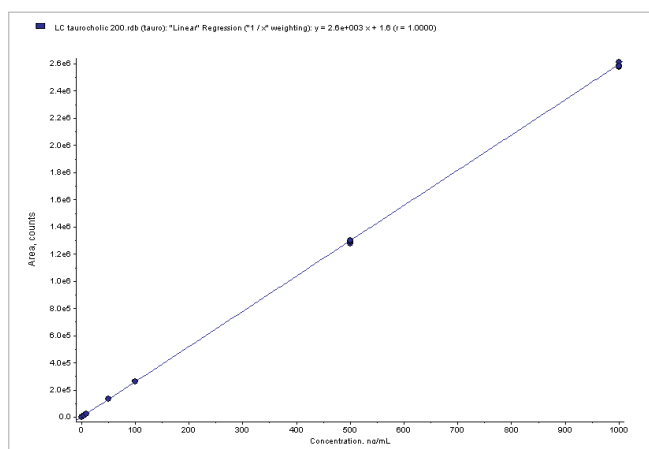
Outstanding reliability for maximum productivity.

Robust ion sources, advanced interfaces, and stable ion optics provide the ruggedness and reliability required for maximum instrument-up time and productivity from nano flow rates to 3 ml/min. Instrument and software stability provide consistent, confident results day after day.



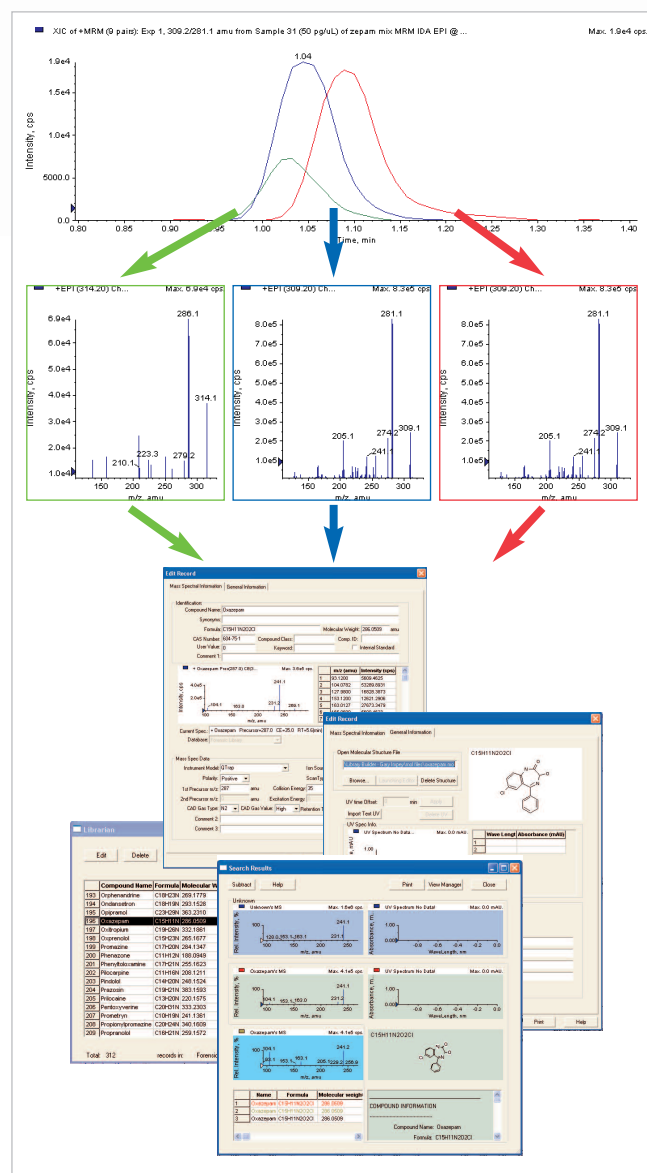
True triple quad quantitation.

With a linear dynamic range of four orders of magnitude, the 3200 Q TRAP® system provides the quantitation performance that triple quadrupole LC/MS/MS systems are known for. The system performs Multiple Reaction Monitoring (MRM) scans for highest quantitative sensitivity.



More useful information from every experiment.

Application specific software routines and the unique specificity of hybrid triple quadrupole/Linear Ion Trap technology combine to provide automated workflows that deliver the most information from every experiment.



Detected peaks can be automatically surveyed by MS/MS for identification, and compared to spectra from a library for ID confirmation.

Even a limited budget can take you a lot further than you think.

Whether your work involves proteomics, drug discovery, drug development, or forensic studies, the Applied Biosystems/MDS SCIEX 3200 Q TRAP® LC/MS/MS system can make your efforts more productive by giving you an affordable, single-system solution with a wide range of application capabilities, plus best-in-class technical performance.

For more information, call the Applied Biosystems sales office nearest you, or visit <http://www.appliedbiosystems.com/3200qtrap>



iScience. To better understand the complex interaction of biological processes, life scientists are developing revolutionary approaches to discovery that unite technology, informatics, and traditional laboratory research. In partnership with our customers, Applied Biosystems provides the innovative products, services, and knowledge resources that make this new, **Integrated Science** possible.

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3200 Q TRAP system products are covered by US patents 4,963,736; 5,847,386; and 6,177,668.

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