API 150 EX LC/MS System

The API 150EX ™ LC/MS System is the most rugged and
reliable single quadrupole LC/MS system available. It delivers superior performance for your most demanding applications—characterization of compounds in lead discovery and optimization, identification of pharmaceutical impurities and degradation products, quantitative and qualitative studies for drug discovery, and analysis of proteins and peptides.

A Complete Design

The API 150EX system was designed by scientists who are pioneers in LC/MS—experts at Applied Biosystems/MDS SCIEX—to service the most demanding laboratories.

Complete

• Dual 50LPS turbo pumps are aircooled,low-maintenance systems that provide rapid pumpdown and automatic
maintenance of the analyzer vacuum.

• This space-efficient system fits on most laboratory benches.

Rugged

• Dependable nitrogen Curtain Gas™technology from Applied Biosystems/ MDS SCIEX

keeps your system running dependably by protecting the ion path from contamination, especially with samples from biological fluids.

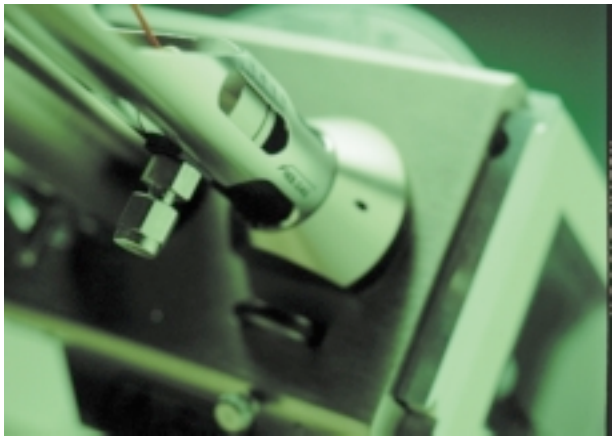
• The gold-plated ceramic quadrupole mass analyzer minimizes system temperature dependence. Your API
150EX system offers highly stable mass calibration and does not require constant tuning.

Reliable

• Analyst™ software for Windows NT® provides powerful system control and data manipulation capabilities.

• Highly efficient ion optics provide excellent transmission for optimal sensitivity.

• Dependable, high-performance TurboIonSpray™ and Heated Nebulizer (APCI) sources achieve superior results over a wide range of sample types, solvents, and flow rates.

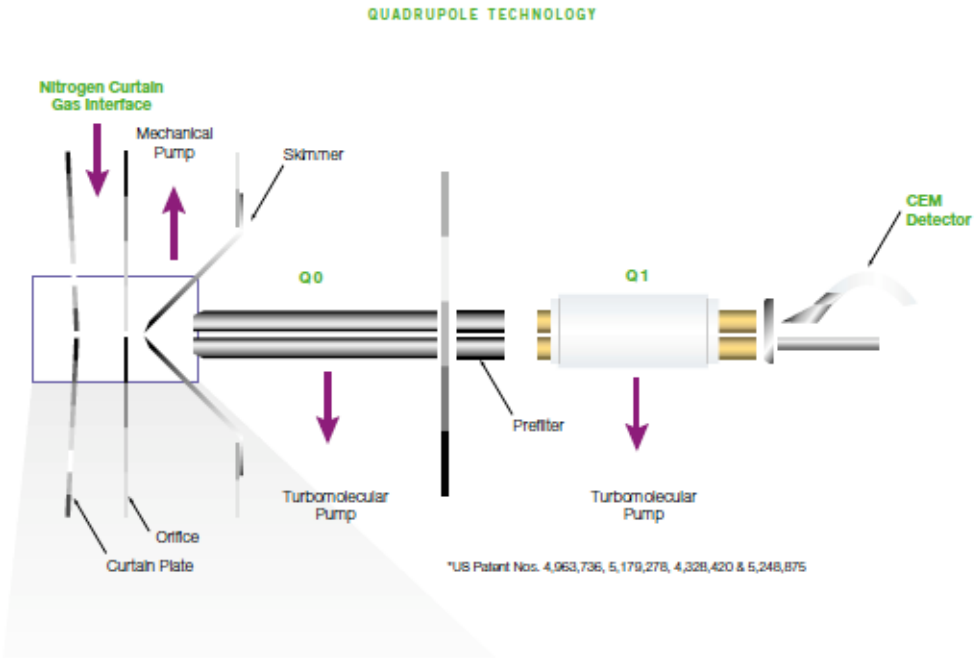


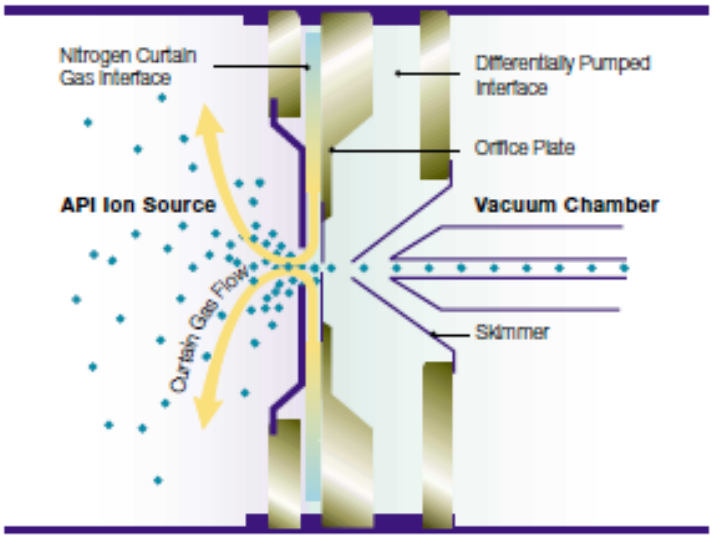
1) Nitrogen Curtain Gas™ interface technology protects the ion pathway from contamination.

2) Patented high-pressure collisional focusing system (Q0) concentrates analyte ions into a focused isoenergetic beam for efficient mass filtering in the analyzer section.

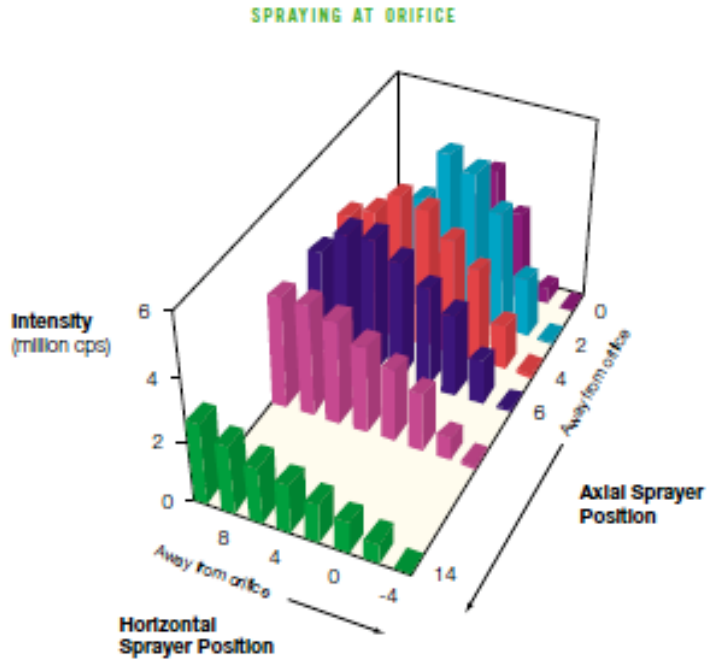
3) Gold-plated ceramic quadrupole rods (Q1) provide extremely stable mass calibration, so the system does not require constant tuning. That means the API 150EX™ system is much more reliable than many other systems on the market.

4) Digital pulse-counting detector provides very high sensitivity and does not respond disproportionately to ion clusters.





Exclusive nitrogen Curtain Gas™ interface system from Applied Biosystems/MDS SCIEX protects the ion path for maximum ruggedness and resistance to contaminants.



Optimized API interface gives maximum response with minimal adjustment. A broad area of ion acceptance and easy source optimization simplifies method development and maximizes productivity.

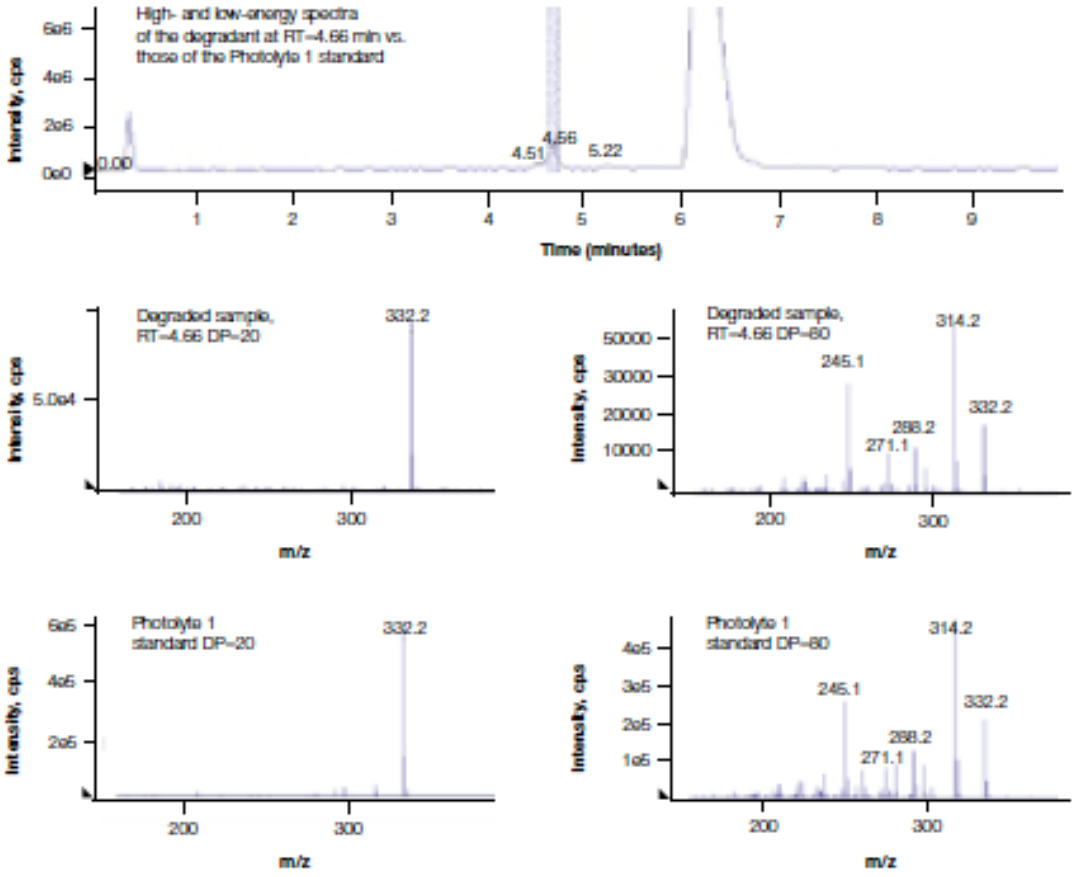
With Analyst™ software, the API 150EX ™ system is easier to use than ever before.

Now, the power of mass spectrometry is available to all LC/MS users, novice and expert. The superior selectivity and specificity of MS detection accelerates assay development and decreases analysis time. Analyst software is a PC-based Windows NT® package for Applied Biosystems/ MDS SCIEX LC/MS systems. It is designed to provide full control of data acquisition, integrated control of LC peripherals, and powerful data manipulation capabilities.

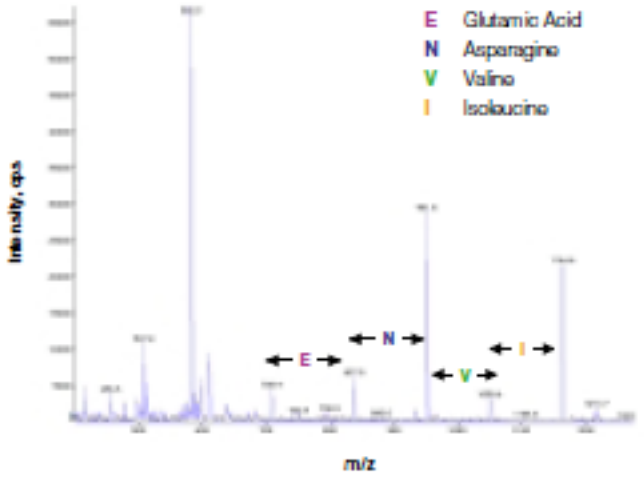
While the API 150EX system can rapidly analyze some compounds using flow injection analysis (FIA), it can interface with various HPLC systems to analyze complex mixtures. Analyses can also be performed using collision induced dissociation (CID) to produce characteristic fragment ions revealing the chemical structure of molecules.The system can also obtain molecular weight and structural information in a single analysis, using powerful mixed mode analyses—saving time and conserving valuable samples.

Laboratory analysts will appreciate how quickly and accurately the API 150EX system screens for expected molecular weight over a wide analyte concentration range. Routine

analysis and method development time is reduced, allowing for increased productivity. The API 150EX system is a rugged and reliable system that offers unrivaled sensitivity and quantitative linearity.This easy to use system accommodates a wide variety of quantitative assays.



Reproducible CID was able to identify a Lomefloxacin (antibacterial) degradant.



Using CID, the fragmentation patterns from peptides can yield direct information leading to knowledge of their amino acid sequences.

The API 150EX™ system delivers essential molecular weight and structural information to produce the right answers faster.

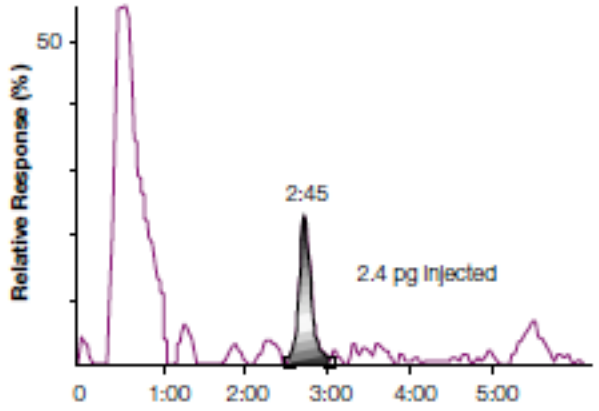
Delivering superior throughput, rugged and reliable performance, and a marked improvement in your productivity, the API 150EX system is one of the most advanced, easy to use systems of its kind. The system consistently performs well, even with samples from physiological fluids, and provides excellent linearity with high sensitivity.

The API 150EX ™ system with Analyst™ software affords you integrated system control over a variety of LC pumps and autosampler modules.

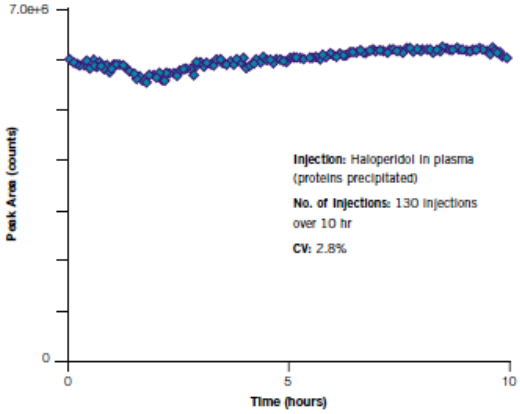
Analyst software helps make your LC/MS tasks easier so that you can obtain the data you want in the formats you need. Easy resolution optimization uses pre-defined routines to automatically set peak width and mass calibration. Quantitative optimization automatically determines instrument settings for the best SIM signal for accurate quantitative analysis of a compound.

The powerful quantitative capability of Analyst software allows rapid processing of quantitative data and automatic extraction of critical information from data sets through queries and metric plots. The system's pump and autosampler are fully integrated and controlled as part of the method. Available LC devices are conveniently set up in the

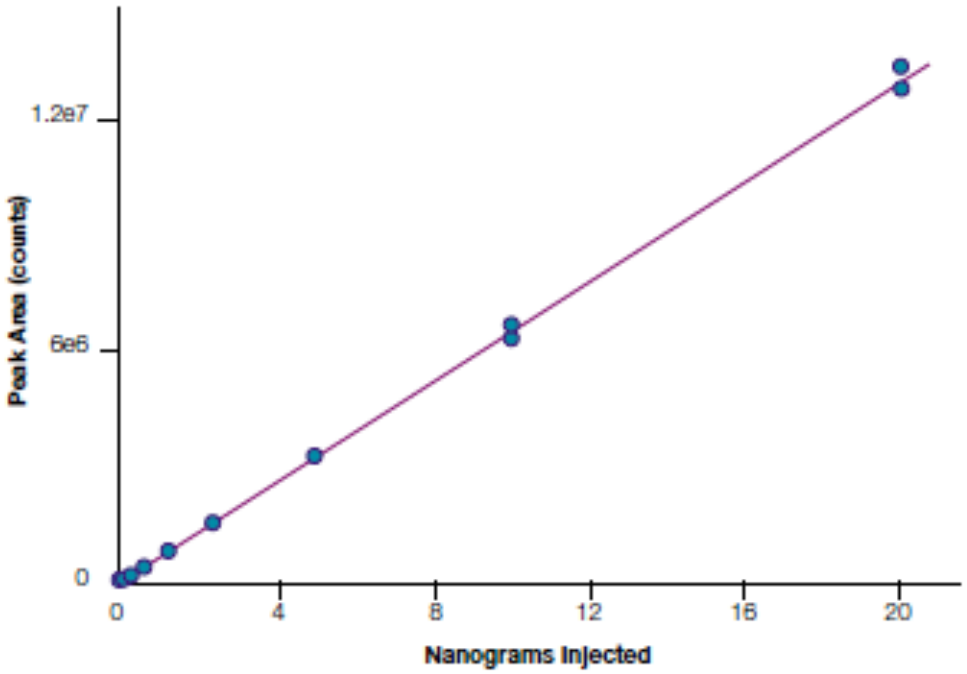
hardware configurator. Regardless of the brand of LC module controlled, Analyst software provides the same easy to use control interface.



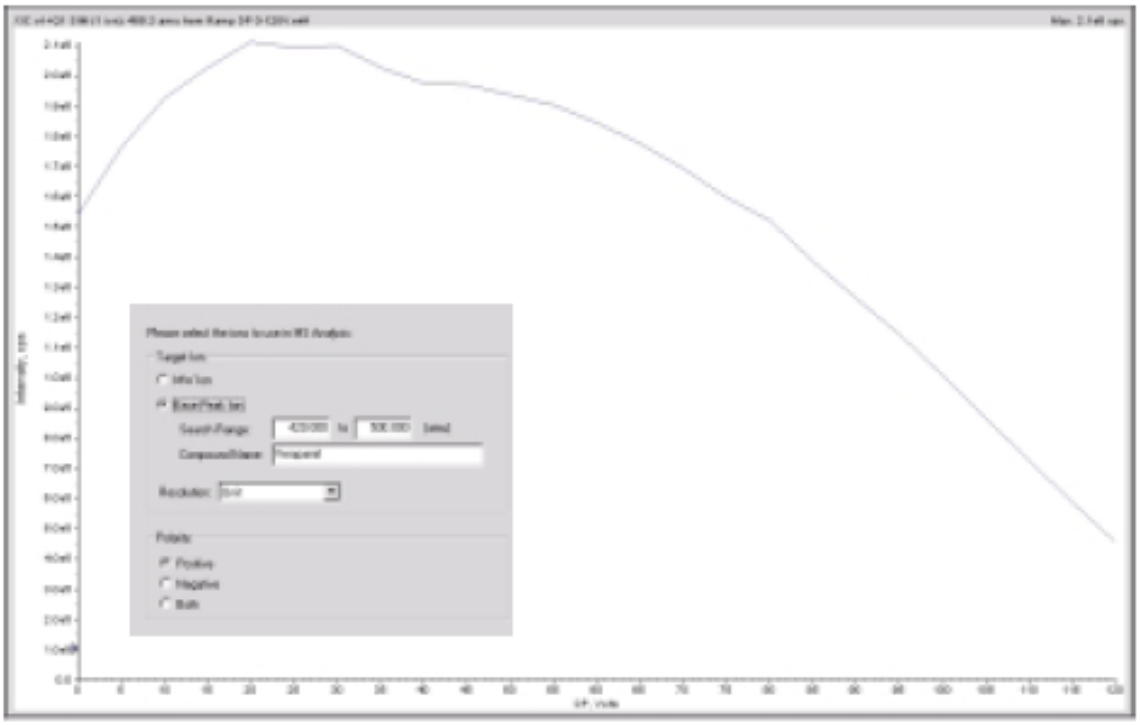
Sensitivity: LC/MS analysis of 2.4 pg of an antihistamine from protein precipitated plasma.



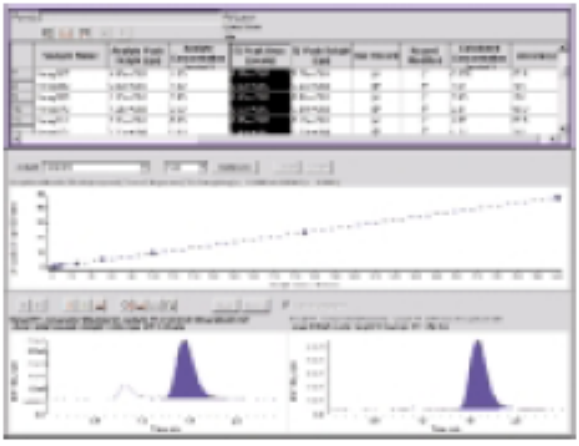
Ruggedness: Analysis of haloperidol, an antidyskinetic, from protein precipitated plasma by LC/MS single-ion monitoring (SIM).



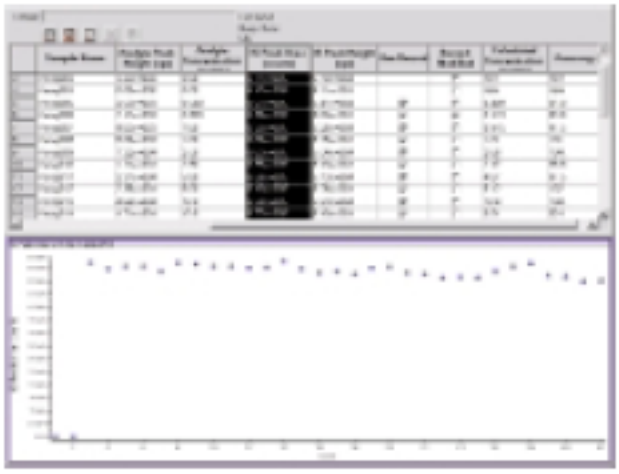
Quantitative Linearity: Analysis of an antihistamine (2.4 pg to 20 ng) from protein precipitated plasma (correlation coefficient=1.00).



Auto optimization: Enter basic compound information, and Analyst® software automatically optimizes data by locating the correct mass and preparing a method for quantitation. This figure is an example of how auto optimization adjusts ion path parameters in order to maximize signal.



Quantitative results: Analyst® software offers you an innovative set of advanced tools for enhanced quantitative data processing. You can view tables, graphs, and peak data all on one screen.



Metric plot: Two mouse clicks were all it took to generate this metric plot of IS Peak Area vs. Injection Number. Monitoring the IS Peak Area is also an indicator of the system's stability.