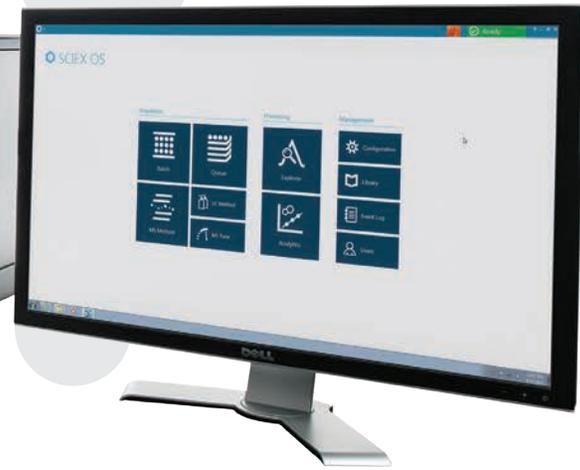# Made For Routine Food, Environment, and Forensic Testing

The X500R QTOF System
Powered by SCIEX OS

SCIEX
Answers for Science.
Knowledge for Life.™

High resolution mass spec, in perfect balance

It's Time You Were Heard

For far too long you've had to adapt to mass spec systems that deliver less than ideal performance. At SCIEX we've heard your concerns loud and clear.

Made just for you, the X500R QTOF system is the first robust, high-performance, high resolution MS system designed for routine food, environment, and forensic testing. With its simple yet comprehensive workflows, the X500R delivers reliable results, making it the solution that's ready to meet your challenges today and for the future. And, it comes to you from the trusted LC-MS/MS industry leader—SCIEX.

Designed exclusively from user input with the perfect balance, so it's easy to operate, easy to maintain, and easy to grow.

Made For Routine Testing Labs

The new **X500R QTOF System**

By listening carefully to what you really want and need in a mass spec system, we created the **X500R QTOF**, the first solution in our new X-Series of high resolution / accurate mass spec systems, designed exclusively for routine testing labs to give you what you need for today and be prepared for what's to come tomorrow.

The smallest high resolution system on the market!

The true benchtop design of the X500R QTOF system will fit seamlessly into your lab space.

The X500R QTOF System from SCIEX

You designed it, we engineered it. In perfect balance to elevate your lab's performance

The right answer, fast

Achieve triple quad-like quantitation at relevant levels, accelerate your data review, and gain greater confidence in identifying food contaminants, forensic compounds, and environmental pollutants so you are sure to get the right answers rapidly and reliably. You get all this plus a thoughtfully designed software user interface that makes the system quick and easy to learn.

Future-proof your process

The X500R QTOF combined with starter methods, compound lists, and verified high resolution MS/MS libraries empower you to perform a myriad of methods all on one system. With the new SCIEX OS acquisition and processing workflows, including IDA and MRM[HR], you also enjoy highly specific targeted quantitation and non-targeted screening capabilities. And, with the power to perform SWATH® Acquisition and the option to upgrade to SCIEX's IonDrive™ Technology, you have a solution that's future-ready.

More than an instrument to keep you up and running

Because the X500R is from a trusted partner like SCIEX, you can be assured of maximum uptime and productivity with our rapid response time, StatusScope® Remote Monitoring tools, legendary hardware performance and new service diagnostic and tuning tools. Uptime and productivity aren't all that are maximized; so is your success thanks to SCIEX's global support team, training tools, and access to a vast online community of like-minded scientists to connect with and share ideas.

114 cm

114 cm

57 cm

Taking The Difficulty Out Of Difficult Matrices

With the X500R QTOF you benefit from mass accuracy balanced with fast MS/MS data collection rates, which allow you to reliably detect low-level compounds even amidst an abundance of co-eluting matrix compounds.
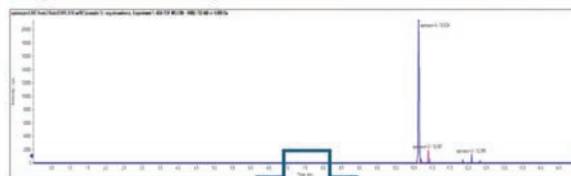
Investigating false positive peaks is a thing of the past

High-quality MS/MS spectra balanced with high-performing library search algorithms and MS/MS compound libraries mean you'll never again miss or misassign a peak.

Meeting regulations won't be a challenge anymore

A system that's balanced for sensitivity and linear dynamic range, and backed by MS/MS spectra for all detected peaks, means you'll be able to reliably detect, quantify, and report priority compounds at relevant levels.
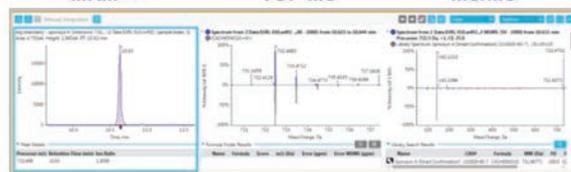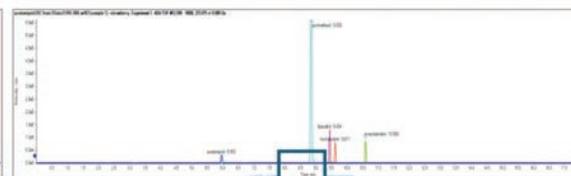
Organic strawberry / **Strawberry**

MRM^{HR} — TOF-MS — MS/MS (Organic strawberry)

MRM^{HR} — TOF-MS — MS/MS (Strawberry)

Spinosyn A: 161 ppb in sample (16.1 ppb in diluted extract)
Mass error = 0.55 ppm
MS/MS Library fit score = 100.0%

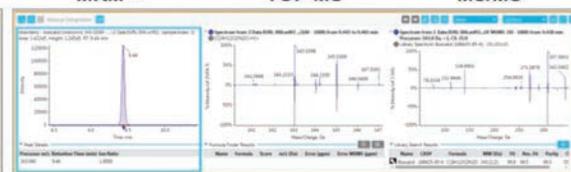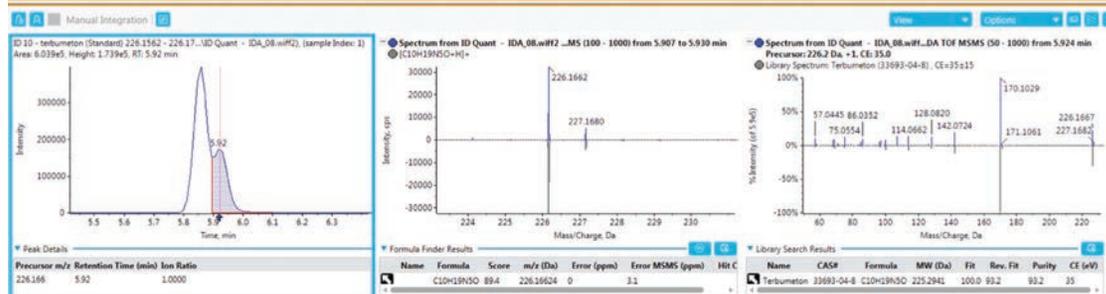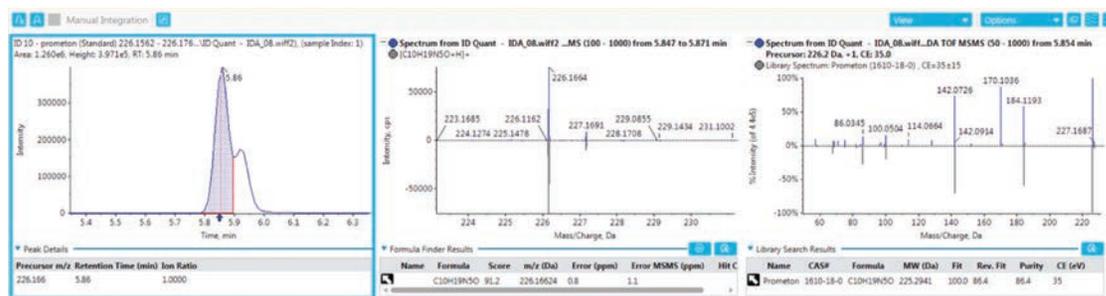**Boscalid:** 13.9 ppb in sample (1.4 ppb in diluted extract)
Mass error = -0.49 ppm
MS/MS Library fit score = 99.3%

Get it right with the X500R QTOF from SCIEX

Capture high resolution MRM data, and perform MS/MS library searching on every peak, for accurate quantitation augmented with reliable confirmation.
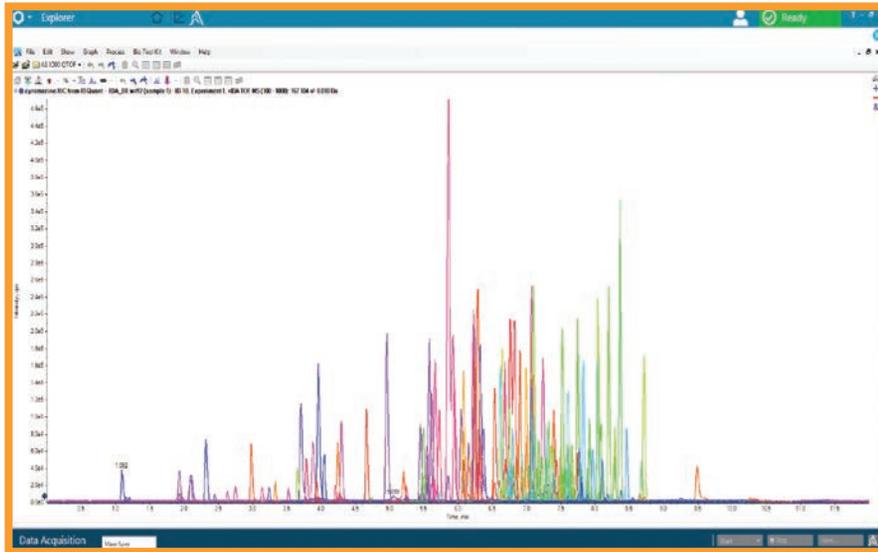

Reliable compound identification is another big benefit

Fast MS/MS data acquisition combined with extensive high resolution MS/MS libraries and high-performing library algorithms deliver reliable compound identification results. In this example, MS/MS with library searching allows distinction between close eluting isomers, which have identical TOF MS spectra.
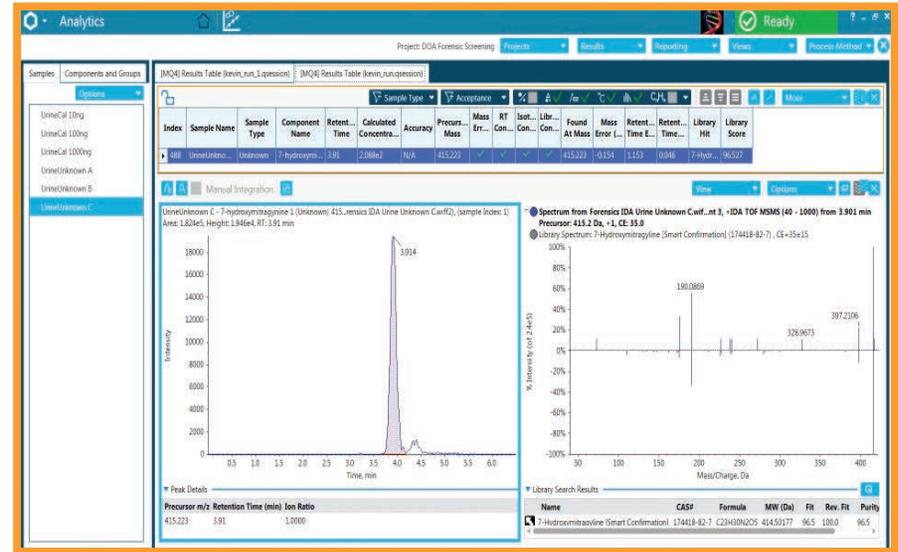
Designed Exclusively For Routine Food, Environment, and Forensic Testing

The X500R is the first high resolution mass spec system for labs tasked with routine detection of low levels of compounds in complex samples or required to profile the composition of samples full of unknowns.

The X500R QTOF system powered by SCIEX OS easily and effortlessly meets the challenges for many of your key applications:
From testing foods and detecting environmental pollutants to identifying forensic compounds.

100 priority food and environmental residues detected at 10 ppb ensure you are able to identify compounds at relevant levels.

TOF MS and Information Dependent TOF MS/MS acquisition delivers reliable unknown identification of drugs in forensic samples.

A World Of Possibilities

Reduce method development time with starter methods for the X500R QTOF system

The all-new method selector tool offers sample prep and LC recommendations, MS conditions, free compound databases, and access to high resolution MS/MS libraries for these key applications, and matrices:

- Pesticides
- Antibiotics
- Mycotoxins
- PPCP compounds
- Forensic drugs

- Foods
- Beverages
- Water
- Cannabis
- Urine

To learn more about these methods go to the SCIEX.com method selector: **sciex.com/XMethods**

A Solution That Grows With The Needs of Your Lab

Designed to handle today's methods, and ready to take on whatever lies ahead
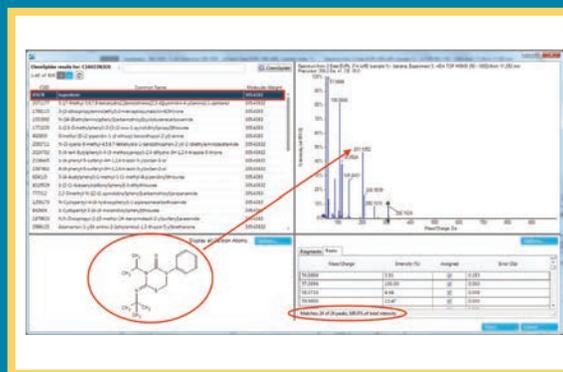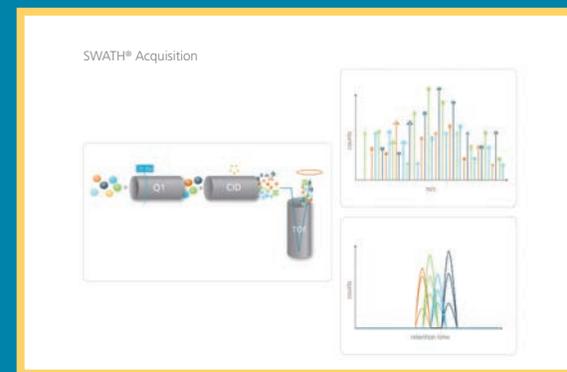
For today . . . →

Ease the transition from Triple Quad to HRMS

With sensitivity to detect residues at trace levels and up to 4 orders of linear dynamic range, the X500R QTOF system is powerful for quantitation and delivers added selectivity to routine targeted methods.

For tomorrow . . . →

Smart tools for unknown surveillance and new method development

Discover new compounds or establish new methods with a toolkit of data acquisition and data processing workflows designed to expand beyond targeted screening with practical, automated tools for unknown surveillance and discovery.

For well into the future

Keep ahead of changes

Respond to new regulations or address emergencies with the capacity to perform advanced workflows such as SWATH® Acquisition for deeper sample surveillance, or upgrade your ion source to IonDrive Technology to deliver enhanced sensitivity when challenged with changing regulatory limits.

Verified High Resolution MS/MS Libraries

Screen samples faster, and enhance reliability with verified high resolution MS/MS libraries

High resolution MS/MS Spectral Libraries are the fastest way to analyze large batches of MS/MS data for accurate compound detection and identification.

Our verified libraries contain commonly tested food, environment, and forensic compounds so you can more easily create methods and process targeted and non-targeted screening data on your complex samples.

HR-MS/MS library	# compounds
Pesticides	557
Antibiotics	244
Mycotoxins	288
Fluorochemicals	96
Forensic drugs	1703
All-in-one library, including the above plus relevant PPCP compounds	2135

To learn more about these libraries go to the SCIEX.com method selector: **sciex.com/XMethods**

See and learn more about the X500R QTOF with SCIEX OS—the high resolution mass spec system in perfect balance to elevate your lab's performance

sciex.com/X500R

sciex.com/OS

Your Success is Our Success
We take it personally

As a SCIEX customer you have access to a world-class customer support organization. Wherever you are, we're there with you as a trusted partner to answer questions, provide solutions, and maximize lab productivity.

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When you have questions, we have answers.

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