

thermoscientific

Confident quantitation

For today and what's next



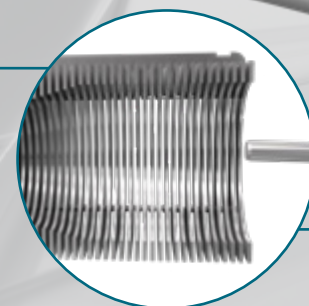
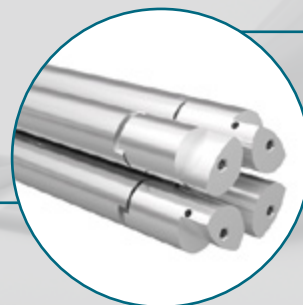
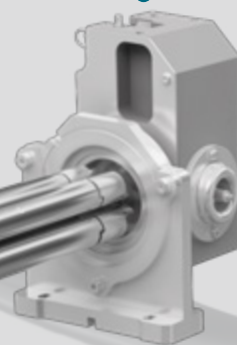
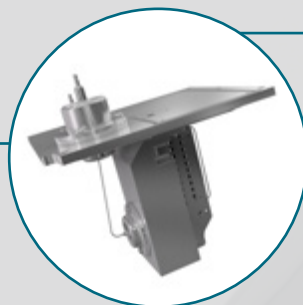
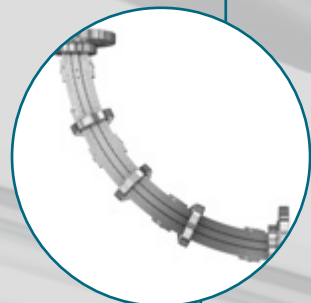
Thermo Scientific TSQ Altis
triple-stage quadrupole mass spectrometer

ThermoFisher
SCIENTIFIC

Experience confident quantitation: TSQ Altis MS with **AIM+** Technology

Active collision cell with axial DC field

Enables ultra-fast selected reaction monitoring (SRM).



Optimized high capacity transfer tube (HCTT)

Maximizes ion introduction while maintaining robustness.

Electrodynamic Ion Funnel (EDIF)

Efficient capture and gentle movement of ions from the HCTT into the vacuum region provides ultimate sensitivity.

No compromises: supreme quantitative performance

Your samples are limited and precious. The Thermo Scientific™ TSQ Altis™ triple-stage quadrupole mass spectrometer makes the most of every attogram. Analytical labs demand robust, sensitive, and efficient targeted quantitation workflows to meet their scientific and business goals. The TSQ Altis MS is designed to help scientists achieve these goals every day, for every sample.

Sensitive, selective, fast

Innovations in the ion source, mass analyzer and RF electronics offer high sensitivity, reduced noise, and more data points with high SRM rates. You can confidently quantify compounds at extremely low concentrations, in the most challenging matrices.

Robust, reliable, reproducible

The TSQ Altis MS is designed for stable, reliable and consistent performance. Novel ion optics and source designs enhance robustness, reduce maintenance, and increase reproducibility. Every TSQ Altis MS produces results that you can have confidence in every day.

Active Ion Management Plus (AIM+)

The next step in precision design delivers the ultimate in ion management, inception to detection, from the Thermo Scientific™ OptaMax™ NG ion source housing to the enhanced electron multiplier. AIM+ incorporates QR5 Segmented Quadrupoles and enhanced RF electronics to further optimize ion management precision, reliability, speed, and reproducibility.

Confident by design

The TSQ Altis triple-stage quadrupole mass spectrometer is designed with confidence in mind. TSQ Altis MS delivers superb sensitivity and excellent robustness reliably, for all applications, thereby enabling confidence in your results day in and day out.

Enhanced dual-mode discrete-dynode electron multiplier detector

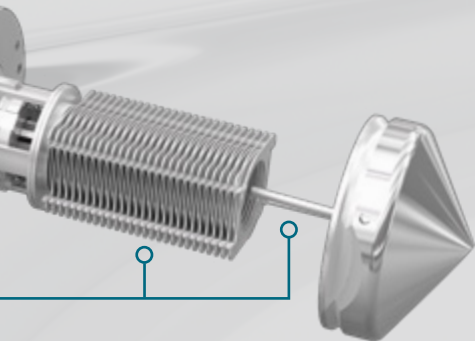
Extends multiplier lifetime with increased surface area. Maintains excellent linearity and dynamic range.

QR5 Segmented Quadrupole mass filters with hyperbolic surfaces

Enhances ion transmission and consistency to ensure superb sensitivity and reproducible results across instruments and over time for increased productivity.

Ion beam guide with neutral blocker

Provides robust performance and maximum sensitivity by blocking neutrals and efficiently transmitting ions.



OptaMax NG ion source APCI ready

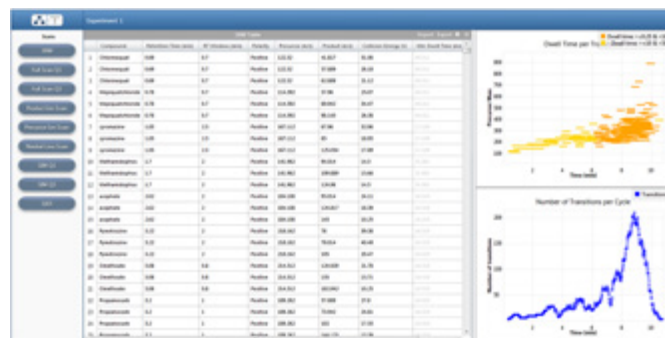
Automates all gas and voltage connections for ease-of-use. Provides optimizable spray position for ultimate performance in HESI or APCI mode.

Effortless productivity

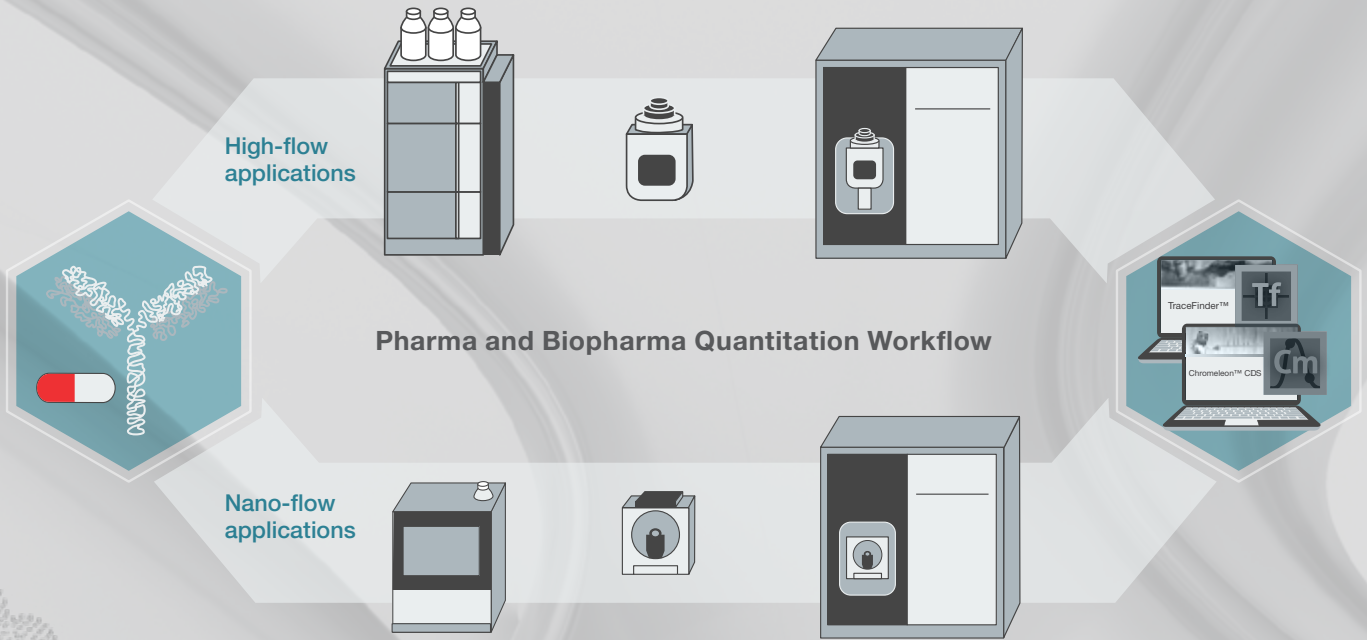
The TSQ Altis mass spectrometer provides practical ease-of-use and performance features to increase sample throughput.

- Simple maintenance (no need to break vacuum)
- More compounds per sample—more samples per day
- Automated compound optimization
- SRM visualization and optimization
- Streamlined data review and reporting

SRM visualization for maximizing SRM performance



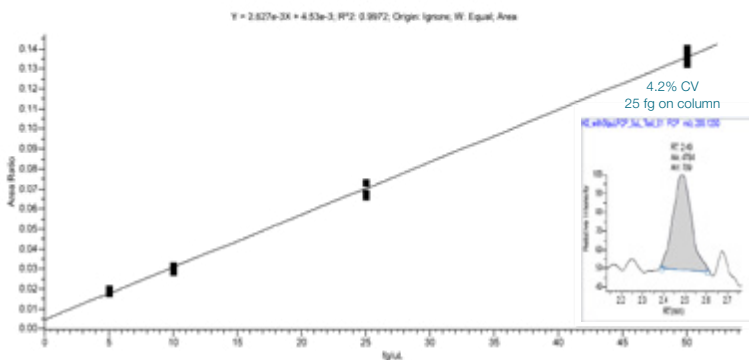
Make your **Pharma** and **Biopharmaceutical** research workflows more productive



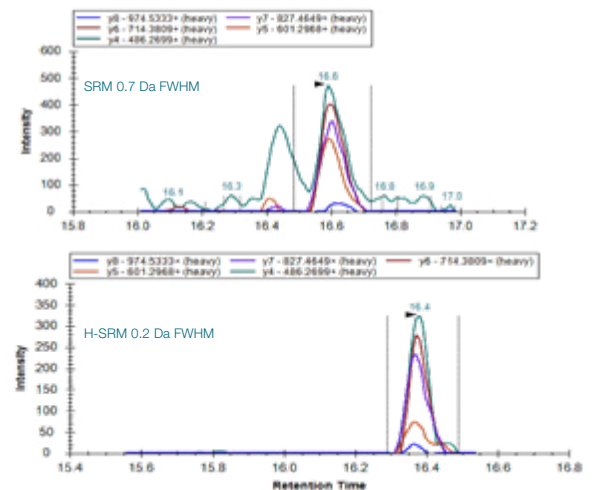
The industry-leading sensitivity and selectivity of the TSQ Altis mass spectrometer make it an ideal instrument for developing targeted quantitation assays that can quantify all types of molecules at ultra-low levels in complex biological matrices.

- Easy to use regardless of application, from nano to highflow methods
- Extra selectivity for peptide quantitation applications with Highly Selected Reaction Monitoring (H-SRM) capability
- Sensitivity to detect your lowest level metabolites or make your most challenging assay easy

Superior sensitivity and reproducibility to quantify Fluticasone Propionate in matrix.



Improving limits of quantitation with high resolution SRM (H-SRM, 0.2 Da FWHM).



0.5 fmol NGFILDGFPR in plasma digest

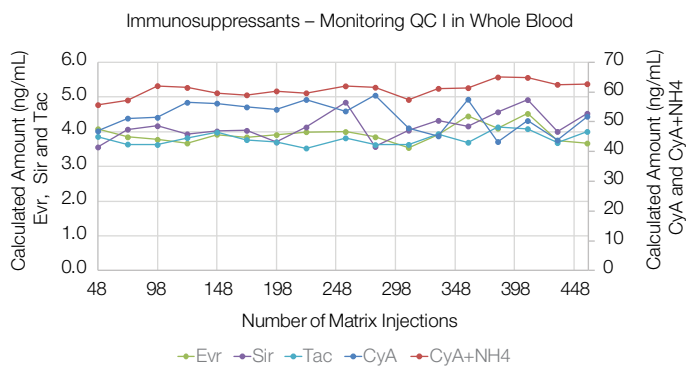
Meet Clinical Research and Forensic Toxicology testing requirements



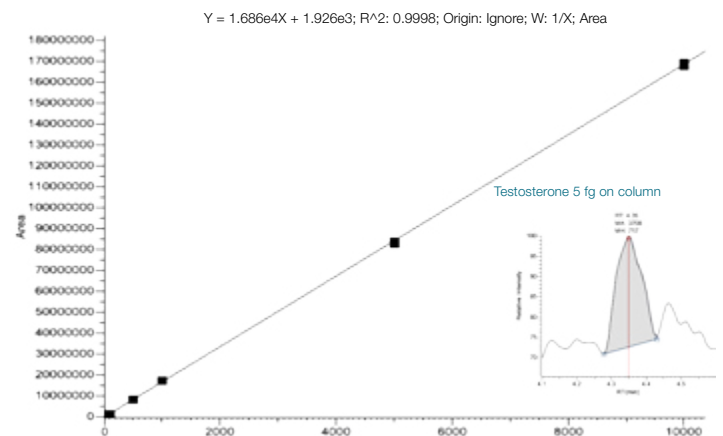
From identifying and quantifying steroids, to quantitation of illicit drugs, clinical research and forensic toxicology applications demand high sensitivity, precision, and reliability. The TSQ Altis mass spectrometer provides ultra-high sensitivity and reproducibility for the quantitation of low-level compounds in complex biological matrices.

- Increase productivity with simplified workflows and multi-channel technology to maximize throughput
- Easy to use workflows from sample injection to report generation
- Robust and consistent performance day after day

Robust and consistent performance under challenging conditions, maximize uptime.



The sensitivity required for the most demanding applications.



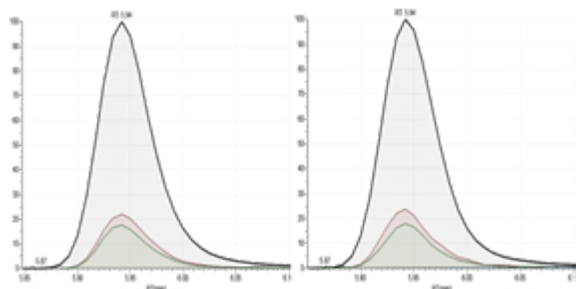
Keep up with the high-sensitivity demands of **Food and Environmental Safety** testing



New challenges in food and environmental safety emerge every day. Quantitation of hundreds of contaminants at ultra-low levels can be easily performed using the TSQ Altis mass spectrometer. Robust quantitation, outstanding reproducibility, ultimate sensitivity, and remarkable speed provide the highest confidence in your workflows.

- Speed to analyze more compounds per injection or reduce run times overall
- Robustness to run more samples with minimal maintenance
- Easy data visualization and customized reporting
- Sensitivity to detect emerging contaminants at ultra-low levels

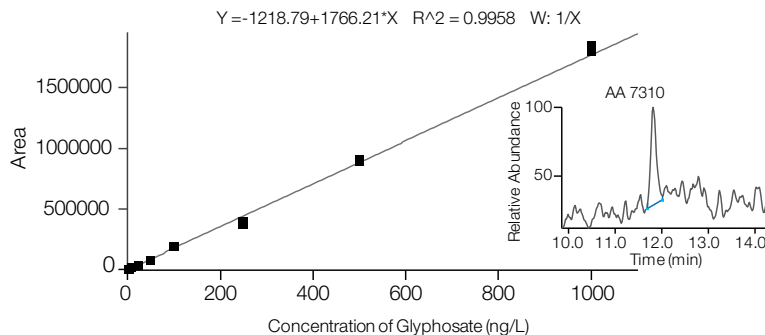
Reliable and consistent ion ratio confirmation when analyzing contaminants at low concentrations in challenging matrices.



Thiachlorid in leek 10 x below MRL

Thiachlorid in leek at MRL

Confident quantitation of challenging analytes. Powerful LC- and IC-MS/MS solutions for environmental analysis.



IC-MS/MS Analysis of Glyphosate at 5 ng/L
3 % RSD for 3 replicate injections

Companion solutions for the TSQ Altis mass spectrometer

Workflow-driven software, solutions, and support streamline your applications

Integrated workflow-driven software and solutions streamline everyday tasks from instrument optimization and troubleshooting to routine method development and results reporting.



Thermo Scientific™ TraceFinder™ software

Comprehensive quantitative workflows for all applications— from method development to report generation



AppsLab method library

A comprehensive repository for application methods, data sets, and application notes



Thermo Scientific™ Chromeleon™ software

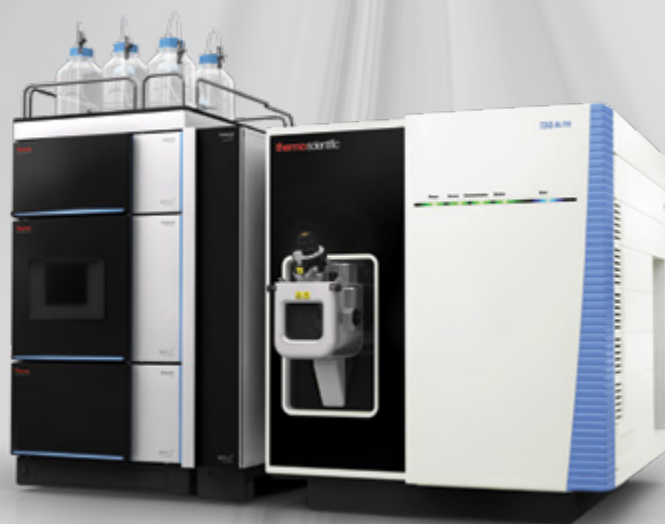
Offers enterprise instrument control, data processing, and ability to address regulatory requirements

Our global Centers of Excellence, in-your-lab training using your methods, and AppsLab Library of Analytical Applications, ensure your success.

Chromatography solutions for MS

The TSQ Altis mass spectrometer can be paired with a range of high-performance Thermo Scientific™ inlet systems.

- Thermo Scientific™ Vanquish™ UHPLC system
- Thermo Scientific™ Vanquish™ Flex, Horizon and Duo UHPLC systems
- Thermo Scientific™ Transcend™ II system
- Thermo Scientific™ Prelude SPLC™ system with multiplexing
- Thermo Scientific™ Dionex™ ICS-6000 Capillary HPIC™ system
- Thermo Scientific™ Dionex™ Integrion™ HPIC™ system



Transforming triple quadrupole mass spectrometers

The TSO Altis mass spectrometer is one in a family of latest-generation Thermo Scientific™ triple quadrupole mass spectrometers that offer confident quantitation every day, for every lab and every user.

These instruments are built on a foundation of shared, state-of-the-art hardware and software components. This makes it easier to transfer methods from one instrument to another when methods progress from single, sample-based experiments to validation and routine high-volume screening and quantitation.



Almanac web-based monitoring and management

The ability to remotely access and manage your LC-MS and GC-MS systems lets you focus on other important tasks during your day. Using the Almanac phone App, Instrument Connect or web-based application, you can check real-time system status and acquisition, set up automated e-mails to notify you of a completed acquisition or error, schedule instrument access, monitor utilization, or submit information to service personnel to aid in instrument diagnostics. thermofisher.com/almanac



Technical and online support: peak performance for your instruments

Helping you keep your instruments running at peak performance is our goal. Whether you're looking for an instrument manual or spare parts, want to submit a repair request, or check on the status of your warranty or service contract, we have every support option you're looking for. thermofisher.com/technicalresources



Protecting your investments: unparalleled laboratory services

Unity™ Lab Services provides a single source for integrated lab service, support, and supply management. Our customized service offerings and world-class service experts have the flexibility and experience to effectively address your laboratory's business needs. We provide a complete portfolio of services and support solutions designed to help you improve productivity, reduce total cost of ownership, and ensure performance throughout your laboratory—from instrument and equipment acquisition to disposition. unitylabservices.com

Find out more at thermofisher.com/Altis

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