Kevo[™] | G3 QTof

Characterization with complete confidence



Kevo^m | G3 QTof

ULTIMATE PERFORMANCE

Ensure maximum coverage of analytes and with improved transmission low *m/z* ions, labile species, while still excelling in traditional biopharmaceutical workflows and addressing emerging needs to characterize new modalities.

CONNECTED PRODUCTIVITY

Harmonize workflows across development, manufacturing and QC by deploying the Xevo G3 QTof and the BioAccord[™] System with ACQUITY[™] Premier within the waters_connect[™] ecosystem.

EXTENDED FLEXIBILITY

Improved quantitative capabilities, with wider inter- and intra-spectrum dynamic range for comprehensive quantitative/qualitative analysis, ideal for screening and targeted applications.

UNQUESTIONED CONFIDENCE

Ensure high quality data with consistent robustness and reproducibility through advances in ion optics, maintaining performance and productivity over a longer time period.

Complete Coverage for Confident Characterization

The Xevo[™] G3 QTof, an analytical workhorse, is designed to characterize and quantify a diverse set of molecules.

Ultimate Performance

Increase your application coverage

As labs extend their capabilities, more is required from their analytical systems. The Xevo G3 QTof incorporates new technology building blocks that improve a scientists' ability to characterize:

- 1. Complex biologics with inclusion of a m/z 16,000 calibration range and tailored informatics.
- 2. Challenging small molecules with updates to the ion optics and detection system that maximize transmission and dynamic range.

The Xevo G3 QTof, equipped with the StepWave[™] XS ion guide, QUANTOF efficiently transmits low m/z ions, labile species, increasing compound **FLIGHT TUBE** coverage and analytical fidelity. **DUAL STAGE** REFLECTRON ANALYTE LOCKMASS QUADRUPOLE pDRE LENS SPRAY SPRAY STEPWAVE ION GUIDE ISOLATION VALVE XS COLLISION STEP WAVE XS TRANSFER **HIGH FIELD** ION DETECTION LENS PUSHER SYSTEM

Extended application coverage with the latest technology.



G3 QTof

Connected Productivity

Harmonize your workflows across the pipeline

Harmonizing workflows across development, manufacturing and QC is key to ensuring lab productivity. The Xevo G3 QTof is ideal for characterizing biomolecules and processes before transitioning to dedicated attribute monitoring assays on either the Xevo G3 QTof or BioAccord System with ACQUITY Premier.

The waters_connect Ecosystem offers seamless, compliant-ready workflows to understand and monitor biotherapeutic variation. Systems and users can be connected through waters_connect, with security-controlled access, full data traceability, with the operational efficiency and scalability of networked deployment.

Achieve robust and unbiased performance for analysis of your biotherapeutics with ACQUITY Premier Systems and Columns and an expanding array of informatics tools, including Peptide MAM, INTACT Mass, and CONFIRM Sequence applications.



The waters_connect software applications and workflows.



Harmonize your workflows with Xevo G3 QTof, the BioAccord System and tailored informatics.

Delivering Qualitative and Quantitative Performance

Is it detected and how much is detected?

Analytical laboratories are under pressure to maximize system usage, so a flexible multifunctional instrument that can deliver high quality qualitative and quantitative data sets is critical.

The Xevo G3 QTof, has evolved to address those needs, with updates to core technology delivering up to 5 orders of linear dynamic range through application of adaptive intensity control for targeted Tof-MRM analysis.

For untargeted and screening experiments, with up to 4x increase in-spectrum dynamic range, the Xevo G3 QTof is able detect and quantify components of interest in the most challenging of complex matrices.







G3 QTof

G3 QTof

QuanTof

Simultaneously delivers mass resolution,

speed of analysis, so that the narrowest

dynamic range, mass accuracy, and

chromatographic peaks from the most complex sample matrices can be identified and quantified with no

compromise in performance.

Complete Confidence

High quality reliable data sets every time

Instrument stability and uptime are unquestioned necessities in a fast-paced high-throughput environment. The evolved design of the Xevo G3 QTof has been engineered to deliver consistent robustness and reproducibility, maintaining performance and productivity over a longer time period. With updated ion optics and optimized ion beam conditioning the Xevo G3 QTof is a true analytical workhorse that deliverables high quality data routinely.

Xevo G3 QTof

A bentchtop quadrupole time-of-flight mass spectrometer that identifies, quantifies and confirms the broadest range of compounds in the most complex and challenging samples - a true analytical workhorse.

Stepwave XS

- The co-joined ion guide, efficiently transmits thermally labile species increasing compound coverage.
- The redesigned optics not only provides enhanced sensitivity for challenging compounds but further improves levels of analytical robustness.

Universal Ion Source

- The most extensive range of ion sources for the broadest range of analytes.
- Tool free design enables ease of use and simplifies routine maintenance.
- Source options are quickly interchangeable and ready to use within minutes.

Reflection Improves focusing of ions for high resolution spectra.

Dual Stage

High Field Pusher Increases duty cycle and instrument sensitivity.

ADC Detector

Provides 4 orders of in-spectrum dynamic range and 5 orders of inter-scan dynamic range for targeted analysis.

XS Collision Cell

- Focuses the ion beam for maximum transmission of ions to the oaTof mass analvzer.
- Allows rapid data acquisition with maximum sensitivity.

Unhindered Analytical Capabilities

Extending the reach of characterization

Having an extensive toolkit at your disposal protects against future unknowns and the ever-increasing complexity of samples.

The Xevo G3 QTof is equipped with the universal source architecture, maximizing versatility and minimizing downtown. With options including ESI, ESCi,™ APCI, APGC,™ ASAP,™ UniSpray,™ nanoFlow ESI, and DESI XS* the Xevo G3 QTof can be used for many different applications and molecule types — swap your source not your instrument.

Support of a range of inlets including ACQUITY Premier System, ACQUITY UPLC[™] PLUS Series, ACQUITY UPLC M-Class, and ACQUITY 2D-LC* ensures your lab is equipped for the future and can handle challenging and complex samples.

The Xevo G3 QTof is available on both our waters_connect and MassLynx[™] Software platforms, providing the ultimate flexibility to meet your labs analytical requirements.

waters_connect

The modern, app-based software platform, waters_connect, offers seamless, compliant-ready workflows ensuring data traceability and transferability in a fast paced, highly connected laboratory.

MassLynx

The well-established MassLynx Software package delivers market-leading versatility and flexibility for all application areas.

C- waters_connect

W)	CONFIRM Sequence		1			enta () help (ii) resultativ	
0	Select sequence	Results: Oligo D423 Charge sequence			E	Apply and save Discard	
		Sequence coverage: 100.00% (1/1 spectra selected	i				
C	Select method		-115 -114 -112 -111 -115 -114 -112 -111 -115 -115 -112 -112 -111 -115 -115 -112 -112 -111		16 16 16 10 16 16 16 16		
C	Select samples	5' 000 000 000 000 000 000 000 000 000 0	0024 0024 0026 0024 0024 0024 0024 0024		2'-0%, +874	a 3'	
0	Results						
	Report	Spectrum	Repertion time Acquisition window (min) details	Precursor observed mass Charge state (Da)	% Precursor % Coverage	Dotwap	
		21-mer oligo MSMS with softmized CE April 2th 2022 040722 YEA615 CD Oligo D1424 MSMS optimum CE 02 10:10F MSMS 2341 > 59-5001639 ESt	MS/MS 17.10 - 17.90 Apr 07, 2022 19:23:10 (+00:00)	7.027.3588 3-	14.35 100.00	••••••	
(((

Sequence coverage map of a 21mer heavily modified oligonucleotide within the CONFIRM Sequence application, displaying all the confirmed fragment ions.

KCVO^M G3 QTof

For your local sales office, please visit waters.com/contact



 Waters Corporation

 34 Maple Street

 Milford, MA 01757 U.S.A.

 T: 1 508 478 2000

 F: 1 508 872 1990

 waters.com

waters.com/XevoG3QTof

Waters

Waters, The Science of What's Possible, waters_connect, Xevo, ESCi, APGC, ASAP, ACQUITY, UPLC, UniSpray, BioAccord, QuanTof, StepWave, and MassLynx are trademarks of Waters Corporation. All other trademarks are the property of their respective owners.

©2022 Waters Corporation. Produced in the U.S.A. June 2022 720007645EN KP-PDF