Waters
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BioAccord System with ACQUITY Premier

The BioAccord™ System is a fully integrated solution that simplifies high performance LC-MS analysis for every user. An easy-to-use system solution that puts the power to make decisions directly in your hands; a self-calibrating, self-optimizing, self-sufficient tool that equips you with high quality data you can use to tackle the challenges you face every day during biopharmaceutical development and manufacturing.

The BioAccord System now incorporates ACQUITY™ Premier UPLC™ and chemistries with MaxPeak™ High Performance Surfaces (HPS) Technology which improves separation and detection in biotherapeutic analyses.

In addition to providing high quality data, the BioAccord System is optimized for unparalleled robustness and reproducibility for each application, giving you the confidence of obtaining consistent results day in, day out.

SYSTEM PERFORMANCE FOR BIOPHARMACEUTICAL WORKFLOWS

Intact Mass Analysis	Using the Waters™ Humanized mAb Mass Check Standard (p/n: 186009125) the system demonstrates a mass accuracy for the top 3 Glycoform peaks over 10 repeat injections of less than 20 ppm. In addition, for replicate injections of sample column loading within a concentration range of 25 ng to 2,500 ng, the three largest glycoforms will show reproducibility of deconvoluted intensity at <5% RSD with mass precision of <5 ppm
Peptide Mapping	Greater than 87% coverage for Waters mAb Tryptic Digest Standard (p/n: 186009126) based on an identification filter where all positively identified peptides must have precursor mass accuracy of less than 10 ppm and a minimum of 3 predicted fragment ions observed. Identified peptides from the Waters mAb Tryptic Digest Standard range over more than 3 orders of intensity and approximately 350 to 7,000 Da
Released Glycan Analysis	Expected glycan components, with a relative abundance >0.5% of the total, in the Waters *Rapi*Fluor-MS™ Glycan Performance Test Standard (p/n: 186007983) will be identified using a combination of a 5 ppm mass filter and +/- 0.2 Glycan Units (GU) retention time library identification
Column compartment temperature range	CH-A: 20.0 to 90.0 °C, settable in 0.1 °C increments CM-A: 20.0 to 90.0 °C, settable in 0.1 °C increments, two independent heat/cool zones per module

OPTICAL DETECTION

ACQUITY PREMIER TUNEABLE UV (TUV) DETECTOR

Wavelength range	190 to 700 nm
Wavelength accuracy	±1 nm
Data acquisition	Up to 80 Hz

ACQUITY PREMIER FLUORESCENCE (FLR) DETECTOR

Wavelength range	200 to 890 nm (Excitation) 210 to 900 nm (Emission)
Bandwidth	20 nm
Wavelength accuracy	±3 nm
Data acquisition	Up to 80 Hz

ACQUITY PREMIER PDA eλ DETECTOR

Wavelength range	190 to 800 nm
Wavelength accuracy	±1 nm
Data acquisition	Up to 80 Hz

SOLVENT MANAGEMENT (BINARY SOLVENT MANAGEMENT)

Number of solvents	Up to four, in combination of two: A1 or A2 and B1 or B2
Solvent storage	Four carrier solvent bottles
Solvent conditioning	Vacuum degassing of carrier solvents
Maximum operating pressure	15,000 psi up to 1.0 mL/min
Operating flow range	0.001 to 2.000 mL/min
pH range	2 to 10
Gradient formation	High pressure mixing, binary gradient
Carrier gradient profiles	11 gradient curves, including linear, step (2), concave (4), and convex (4)

SOLVENT MANAGEMENT (QUATERNARY SOLVENT MANAGEMENT)

Number of solvents	QSM: Blend up to four solvents in any combination
Solvent storage	Four carrier solvent bottles
Solvent conditioning	Vacuum degassing of carrier solvents
Maximum operating pressure	15,000 psi up to 1.0 mL/min
Settable flow range	0.001 to 2.200 mL/min
pH range	2 to 10

Gradient formation	Low pressure mixing, quaternary gradient
Carrier gradient profiles	11 gradient curves, including linear, step (2), concave (4), and convex (4)

SAMPLE MANAGEMENT

Injection volume range	0.1 to 10.0 µL as standard configuration Up to 1000 µL with optional extension loop
Sample capacity	Any two of the following: 96 and 384 microtiter plates 48 position 2.00 mL vial plates 48 position 0.65 mL micro-centrifuge tube plates 24 position 1.50 mL micro-centrifuge tube plates
Sample compartment temperature range	4.0 to 40 °C, settable in 0.1 °C increments; maintains 19 °C below ambient with a tolerance range between -2 and +4 °C

COLUMN MANAGEMENT

Options	ACQUITY Premier Column Heater (CH-A) or ACQUITY Premier Column Manager (CM-A)
Column capacity	CH-A: Single column (maximum length of 150 mm)
	CM-A: Two columns, as standard (maximum length of 150 mm)
Column compartment temperature range	CH-A: 20.0 to 90.0 °C, settable in 0.1 °C increments CM-A: 20.0 to 90.0 °C, settable in 0.1 °C increments, two independent heat/cool zones per module

SYSTEM SOFTWARE SPECIFICATIONS

Software	Systems supported by waters_connect™ informatics platform
Health system	The ACQUITY RDa™ Detector has an automated instrument set up and calibration routine for consistent results between users of all experience levels The ACQUITY RDa Detector monitors instrument performance from run-to-run to ensure high quality data and increase confidence in your results. If a fault occurs the software will display information that provides step-by-step guidance on fixing the fault

It should be noted that the above are not standard installation specifications. All BioAccord Systems will be installed and tested in accordance with standard performance tests as detailed in the relevant Waters Installation Checklist document. Test criteria are routinely reviewed to ensure quality is maintained and are therefore subject to change without notice. See Site Preparation Guide and Product Release Notes for additional product and specification information.

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