

Precise mass spectrometry for your routine assays



revvity

SCIEX Triple Quad™ 4500MD LC-MS/MS
System for newborn screening

Providing you with
reliability, robustness and
performance for your routine
clinical assays.



The SCIEX Triple Quad™ 4500MD LC-MS/MS System is a benchtop in vitro diagnostic medical device mass spectrometer for your routine clinical assays.



Revvity is offering 3 different configurations of the SCIEX Triple Quad™ 4500MD LC-MS/MS System to fit into your newborn screening laboratory's needs: SCIEX Triple Quad 4500MD alone or with basic or advanced LC configuration.

All configurations include the following software package (SCIEX Analyst MD, SCIEX MultiQuant MD, SCIEX Cliquant MD, SCIEX ChemoView MD).

The SCIEX 4500MD mass spectrometer combines exceptional sensitivity and rapid data acquisition with the robustness and reliability you expect and need for high throughput workflows. The system allows you to implement a wide range of applications requiring low detection limits, and provides accurate and reproducible data even for assays using complex biological matrices.



SCIEX 4500MD System Specifications

Shimadzu Basic LC Package Components

- Binary UHPLC Pump 130 MPa LC-40B X3 CL
- Autosampler 130 MPa SIL-40C X3 CL
- Plate Changer CL
- Control module CBM-40 CL
- Column compartment CTO-40C CL

Shimadzu Advanced LC Package Components

- 2 x UHPLC pump 130 MPa LC-40D X3 CL
- Autosampler 130 MPa SIL-40C X3 CL
- Plate Changer CL
- 2 x 5-channel degasser DGU-405 CL
- Control module CBM-40 CL
- Column compartment CTO-40C CL

SCIEX 4500MD Specifications

Mass range	5 – 2000 m/z
Sensitivity (pos)	S/N > 300,000 (C.V. <5%), 1pg of reserpine on column, ESI S/N > 2,000 (C.V. <5%), 1pg of 17-OHP on column, APCI
Sensitivity (neg)	S/N > 300,000 (C.V. <5%), 1pg of chloramphenicol on column S/N > 10,000 (C.V. <5%), 1pg of Estradiol on column
Scan speed	12,000 Da/s
Analysis modes	Full scan MS and selected ion MS for both Q1 and Q3, product ion scan, precursor ion scan, neutral loss or gain scan, multiple reaction monitoring (MRM), and Scheduled MRM (sMRM)
Polarity switching	50 msec, in MRM and Scheduled MRM (sMRM) modes
Dynamic range	5 orders of magnitude
Mass stability	0.1 Da over 24 hours*
Ion source	Turbo V™ Ion Source • TurbolonSpray® (ESI) probe • APCI probe
Min. MRM dwell time	1 ms
Dimensions	79 x 79 x 59 cm 32 x 32 x 24 inches
Weight	130 kg (285 lbs)
Operating environment	15-30 °C (59-86 °F) Humidity of 20-80% (non-condensing)

*Mass stability evaluated using Q1 scan and Product Ion scan, at a scan rate of 10 Da/sec. Resolution in LIT mode

NeoBase™ 2 Non-Derivatized MSMS kit for expanded newborn screening

Revvity's NeoBase™ 2 Non-derivatized MSMS kit aims to expand newborn screening for more disorders in a highly simplified three-step workflow. It offers an efficient, cost-effective solution to increase screening capabilities without requiring additional equipment or resources.



1

Screen for over 50 analytes, including X-ALD and ADA SCID markers, using just one dried blood spot (DBS) punch. This simplified process involves a single extraction and incubation step.

2

A streamlined and expedited assay workflow.

3

Reconstitution is made easy with all internal standards conveniently placed in a single vial. The extraction working solution remains stable for up to two weeks, eliminating the requirement for daily preparation.

4

DBS quality controls with analyte concentrations adjusted at clinically significant levels.

From dried blood spot cards, punchers, instruments, reagents to software, our mass spectrometry solutions empower newborn screening laboratories across the globe to meet their demands.



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