

VERITY® CPC Lab MS System

Streamline Your Workflow And Quickly Isolate Added Value Molecules With High Yields And Purity



SPEC SHEET | PURIFICATION

VERITY® CPC LAB MS SYSTEM WITH VERITY® 1920 MASS SPECTROMETER

The VERITY® CPC Lab MS System allows you to perform mass-directed purification of target compounds by centrifugal partition chromatography (CPC). This automated, cost-effective, liquid-liquid purification technique utilizes reusable, silica-free chromatographic columns and the VERITY® 1920 Mass Spectrometer to streamline your workflow and allow you to quickly isolate added value molecules from natural products with high yields and purity.

PURIFY WITH CONFIDENCE

With the VERITY 1920 MS, you'll save valuable time and maximize productivity as targeted fraction collection reduces post purification work and purity analysis. The VERITY 1920 MS improves collection selectivity when the chromatographic resolution is limited from highly concentrated or complex samples, making it the perfect companion for CPC purifications.



Figure 1
VERITY® CPC Lab MS System

IDEAL FOR ISOLATION OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS

Natural products are usually complex and can contain multiple valuable molecules. Mass directed purification allows individual targeting and selective collection of molecules, even for those that do not provide UV signal, based on their mass to charge ratio. Because the VERITY CPC Lab MS System does not denature fragile molecules, it is an ideal choice for natural extract fractionation and natural compound purification. Achieve 95% recovery with > 99% purity.

STREAMLINE WORKFLOWS

Combine the benefits of CPC with the selectivity of mass detection. The reusable, silica-free columns offer high injection capacities of milligrams to kilograms. There are no columns to replace or silica to recycle, and no risk of blocked or contaminated columns. The System uses five times less solvent and eliminates the need for pre-treatment prior to injection.

WORKHORSE IN THE LABORATORY

The VERITY CPC Lab MS System requires minimal maintenance and has been designed to work highly concentrated extracts from lab to pilot scale.



Figure 2
VERITY® 1920 Mass Spectrometer

IDEAL FOR LABORATORIES SEEKING EFFECTIVE MS DETECTION TO ISOLATE PURE COMPOUNDS

The versatile VERITY 1920 MS can utilize electrospray ionization (ESI) or atmospheric pressure chemical ionization (APCI) ion sources, providing application flexibility. The VERITY 1920 MS can be combined with various Gilson Purification systems and selectively purifies active ingredients from small to large molecules and natural products from lab to pilot scale.

INCREASE THE SCOPE OF YOUR DISCOVERY

With a mass range of 10-2000 m/z, the VERITY 1920 MS helps you detect large molecules such as peptides and small proteins easily. Many biomolecules carry multiple charges with electrospray ionization so that even proteins of several tens of kDa can be measured with the 2,000 m/z range.

EASY-TO-USE

The fully automated VERITY CPC Lab MS System is controlled by GLIDER software, praised by users for its intuitive touchscreen interface that enables easy method writing and modification of parameters.

SAFELY YIELD HIGH PURITY COMPOUNDS

When combined with Gilson's uniquely versatile and powerful PLC and VERITY CPC systems, the VERITY 1920 MS brings greater selectivity from lab to pilot scale purification while making mass detection affordable and straightforward for any purification work.

VERITY® 1920 MASS SPECTROMETER SPECIFICATIONS

Specification	Description
Mass Range	10-2000 m/z
Scan Speed	10,000 m/z sec ⁻¹
Sensitivity (ESI+ @ 10pg reserpine)	100:1
Mode	Positive or negative ESI Positive or negative APCI
Accuracy	± 0.1 m/z
Resolution	± 1 m/z
Dynamic Range	4.5 orders of magnitude
Vacuum Pump	Two-stage, oil-sealed, sliding-vane vacuum pump (Edwards RV12)
Gas Supply	4.1-6.9 bar (60-100 psi) >98% pure Nitrogen < 8 L/min - Practical 5 L/min
Power Consumption	600 VA maximum
Dimensions (L x W x H)	56 x 28 x 66 cm (22 x 11 x 26 in.)
Weight	32 kg (70.5 lbs.)