

LucidProteomicsSystem™

Smarter, from top to bottom.

Combining and refining the best of SELDI and TOF/TOF,
giving you something far more useful.

A **new** approach to biomarker discovery.

The choice is clear: You no longer need to choose.

Until now, researchers needed to decide between top-down mass spectrometry applications for protein profiling and digest-based bottom-up methods using high-performance mass spectrometers for biomarker discovery.

No more.

Introducing the Lucid Proteomics System. For the first time, you can now do both top-down and bottom-up proteomics on one system, greatly increasing your success rate in biomarker discovery. The Lucid Proteomics System generates data that spans the entire mass range, excelling at detection of native proteins and peptides under 30 kD. And because of its high throughput, you'll not only discover more, you'll discover it faster.

More than the sum of its parts, the Lucid Proteomics System allows you to take your research in entirely new directions.

Better: from top to bottom.



- > High-sensitivity detection and high-confidence identification of intact proteins and peptides
- > Label-free, rapid processing of large numbers of biological samples
- > Proven and optimized methods for easy and robust protein profiling
- > New generation ultrafleXtreme™ MALDI TOF/TOF, provides unmatched detection capabilities
- > Dedicated, intuitive, and powerful software package with sample tracking
- > Compatible with salts, detergents, and other buffer components, eliminating time-consuming cleanup steps and reducing sample volume requirements
- > Premier expertise and support in top-down profiling and biomarker identification

A complete system.

Bio-Rad ProteinChip® Arrays

For sample partitioning, concentration, and cleanup

The ProteinChip arrays play a key role in the Lucid Proteomics System. The chromatographic nature of the surface-enhanced laser desorption/ionization (SELDI) surface allows direct analysis of complex biological samples across a broad mass range in a robust, reproducible manner to quickly deliver protein profiles for biomarker discovery.



Bruker Mass Spectrometers

For high-performance sample analysis

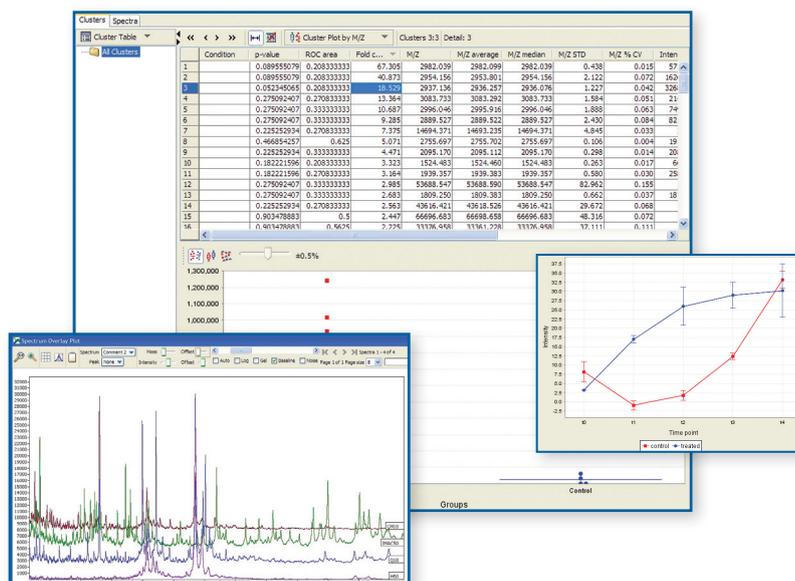
A system as advanced as the Lucid Proteomics System deserves an advanced mass spectrometer. The ultrafleXtreme™ is capable of 1 kHz speed in both TOF and TOF/TOF modes, providing high performance and extreme flexibility. The Lucid Proteomics System is also compatible with autoflex™ and ultraflex™ TOF and TOF/TOF models.



Lucid™ Proteomics Software

Sample tracking, data collection, and data analysis within a single software application

The Lucid proteomics software is an integral component of the Lucid Proteomics System, guiding you from sample tracking and high-throughput data acquisition through the analysis of biomarker candidates. Features include virtual notebooks, multiple modes of spectral visualization, and both univariate and multivariate statistical tools. Built-in system qualification analysis tools track and ensure instrument reliability over time.



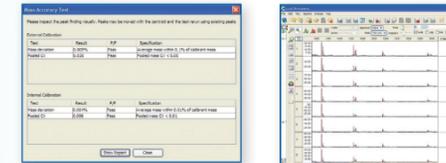
Products that keep the top-down workflow flowing.

Pre-Study

Study Design



System Qualification (Lucid System Qualification Kit)

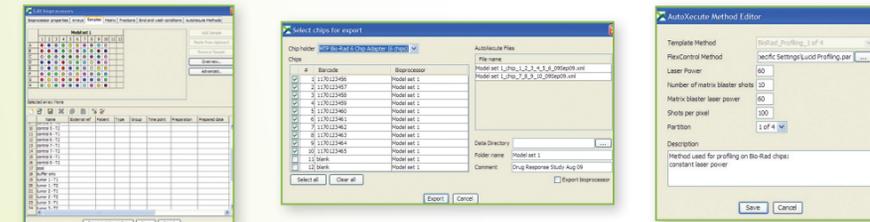


Lucid Profiling

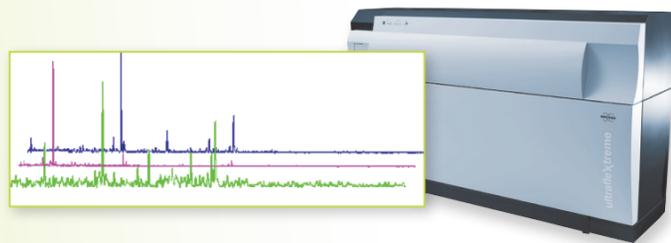
Sample Preparation and ProteinChip Array Binding



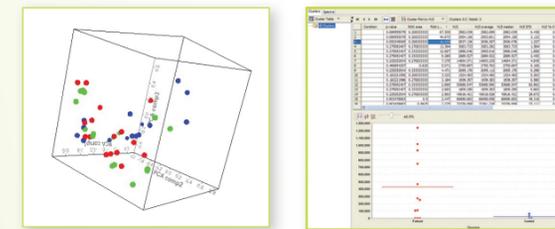
Data Acquisition Set-Up (Lucid Proteomics Software)



Collect TOF Profiling Data



Analyze Data for Candidate Markers (Statistical Analysis)

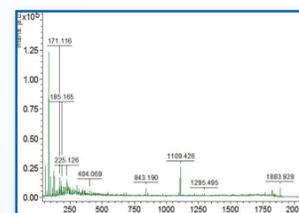


Lucid ID

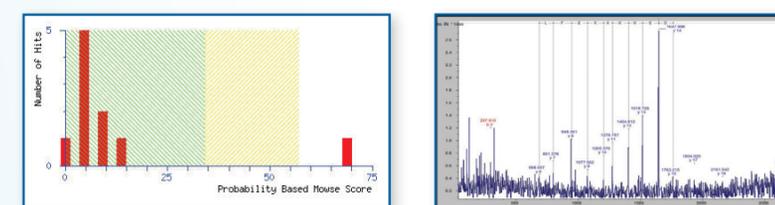
Partial Purification and/or On-Chip Enrichment



Profiling Data Collection



Biomarker Identification (From Database Search)



Lucid Profiling Access Pack

The Lucid profiling access pack contains the manuals, tools, consumables, and software needed for SELDI-based high-throughput native protein and peptide profiling applications. Biomarkers may be readily sought from statistically significant numbers of many diverse biological samples or sample fractions, and the Lucid proteomic software features easy-to-use tools for sample tracking and data mining. The Lucid profiling access pack emphasizes linear instrument operation and the detection of low-mass native proteins (less than 30 kD).



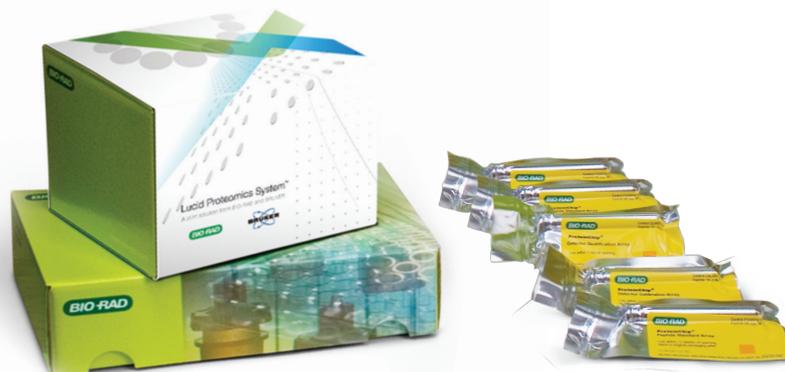
Lucid ID Access Pack

The Lucid ID access pack gives you the manuals, tools, and ProteinChip consumables needed to purify and identify protein biomarker candidates that have been discovered using top-down proteomics approaches. Peptide targets below 4 kD may be enriched and identified by MS/MS directly from the ProteinChip array. The purification of larger targets may be monitored on chromatographic and normal-phase SELDI arrays prior to SDS-PAGE, digestion, and identification by MS/MS.



Lucid System Qualification Kit

The Lucid system qualification kit ensures that the system is operating to recommended specifications. The kit improves the reproducibility and reliability of SELDI data, providing ready methods for evaluation (qualification), optimization, and monitoring of instrument performance prior to the initiation of a proteomic study.



Catalog #	Product	Description
LPS-0020	Lucid Profiling Access Pack	Includes Lucid array holders and stand, Lucid proteomics user's license, profiling consulting agreement, Lucid system qualification kit, starter kit, Lucid proteomics software, profiling handbook, profiling roadmap, ProteinChip CM10 arrays and low-stringency buffer, ProteinChip H50 arrays and buffer, ProteinChip IMAC30 arrays and buffers, ProteinChip Q10 arrays and buffer, ProteinChip SPA matrix, ProteinChip CHCA matrix, ProteinChip cassette-compatible bioprocessors, and a handheld bar code reader.
LPS-0010	Lucid ID Access Pack	Includes Lucid array holder and stand, Lucid proteomics user's license, ID consulting agreement, ProteinChip acetonitrile and TFA (2 ml each), ProteinChip NP20 arrays (includes 12 ProteinChip arrays), ProteinChip assortment pack (includes three each of H50, CM10, IMAC30 and Q10 ProteinChip arrays), ProteinChip cassette-compatible bioprocessor, ProteinChip CM10 low-stringency buffer (200 ml), ProteinChip IMAC buffer set (includes 30 ml IMAC charging solution, 30 ml neutralizing solution, 200 ml IMAC binding buffer), and a ProteinChip matrix kit.
LPS-0030	Lucid System Qualification Kit	Includes a detector calibration array, a peptide standard array, three pre-made CM10 arrays, and an instruction manual. The included consumables are sufficient for six months of system qualification testing.
LPS-0021	Lucid Profiling Basics	Includes an array holder and stand, a profiling user's license, and the system qualification kit.
LPS-0050	Lucid Proteomics Software	Includes two USB keys.
259900	ultrafleXtreme TOF/TOF	Combines true 1 kHz speed in both TOF and TOF/TOF modes with ultrahigh performance and extreme flexibility for a broad variety of complementary research, clinical and applied proteomics applications.
239420	autoflex III TOF/TOF	Innovative MALDI TOF and TOF/TOF technology for reliable and detailed protein characterization, high resolution MALDI imaging, and validated biomarker discovery.

To learn more about the Lucid Proteomics System, contact your Bio-Rad or Bruker representative, or visit www.lucidproteomics.com.

LucidProteomicsSystem™

A joint solution from BIO-RAD and BRUKER.

