

[APPLICATION SOLUTIONS FOR PROTEOMICS]

INTRODUCTION

Proteomics research is increasingly important in facilitating our understanding of systems-level cellular behavior.

Understanding global patterns of protein content and activity, and the complexities of protein-protein interactions will be critical for developing the most effective diagnostic techniques and disease treatments in the future.

In this compilation, we highlight a variety of Waters application solutions that address the unique challenges of proteomic research in five key areas:

IDENTITY^E AND EXPRESSION^E

- Identity^E: A Novel Database Search Strategy for Accurate Mass LC/MS^E Data.....
- Effect of Sample Loading on Protein Identifications.....
- Comparative LC/MS for Qualitative and Quantitative Proteomic Analysis of Tomato-Fungus Interaction
- Identification and Quantification of Diagnostic Markers and Pathway Analysis for Gaucher Disease by Means of LC/MS
- LC/MMS Based Differential Proteomics of the Mitochondria of [PSI+] and [PSI-] *Saccharomyces Cerevisiae* Strains
- Identification, Quantification, and Annotation of Heart Membrane Proteins Using Label-free Nanoscale LC/MS
- Determination of Quantitative Protein Signatures for Ductal Carcinoma (Breast Cancer) by LC/MS Proteome Analysis

STRUCTURAL BIOLOGY

- LCT Premier Mass Spectrometer: An Ideal Platform for Analyzing High Molecular Weight Species
- Waters ZQ Mass Detector for API LC/MS
- High Definition Mass Spectrometry as a Tool for Structural Investigation of High m/z Ion Species.....

BIMARKER VALIDATION

- UPLC MRM Quantification of C-Reactive Protein in Human Serum

PROTEIN CHARACTERIZATION

- Top-Down Sequencing Using SYNAPT High Definition Mass Spectrometry (HDMS)
- DDA^X (Accelerated DDA) for the Q-ToF Premier
- Deglycosylation and Sample Cleanup Method for Mass Spectrometry Analysis of N-Linked Glycans.....

IMAGING

- Increasing the Spatial Resolution of MALDI Images by Oversampling.....
- Introduction to MALDI Imaging
- Advances in MALDI Imaging Mass Spectrometry – Adding a New Dimension of Separation for Direct Tissue Analysis
- Direct Tissue Imaging and Characterization of Phospholipids Using a MALDI SYNAPT HDMS System