

2-D Proteome Analysis Protocols

Edited by
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In *2-D Gel Proteome Analysis Protocols*, Andrew Link and his expert collaborators take today's researchers step-by-step through the complete process of doing proteomics. With easy-to-follow instructions, complete with many helpful hints and explanations, leading investigators and pioneers in the field show how to make protein extracts, reproducibly run them on 2-D gels, detect them, analyze the data, and precisely identify each protein. The book covers the latest methods of using carrier ampholytes in the 1st dimension, casting and running immobilized pH gradient 2-D gels, MALDI-TOF-based peptide mapping, automated tandem mass spectrometry, and nanoelectrospray ionization technology. For the 2nd dimension, there are methods for running flatbed or vertical gels and for protein detection using autoradiography, and Coomassie, silver, and reversible metal-chelate stains. The book is a perfect complement to the genome sequencing project for answering biological questions.

2-D Gel Proteome Analysis Protocols is the most complete guide for using proteomics to answer biological questions. Whether it is a question of global protein analysis or evaluating a cell's response to internal or external stimuli, the advanced methods described here will enable today's researchers better to understand how cells work and open new possibilities for drug discovery.

FEATURES

- Proven protocols for characterizing and identifying the global expression of proteins
- Vital tools for drug discovery and drug targeting
- Latest methods for running 2-D gels, protein detection and identification, and image analysis
- A perfect complement to genome sequencing projects
- Protocols for constructing 2-D databases for the WWW and comparing 2-D gels over the Internet
- Mass spectrometry methods for rapid, high-sensitivity protein identification
- Detailed techniques for acquisition and computer analysis 2-D gel images

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