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BOOK REVIEW

Microarray Methods and Protocols

(R. S. Matson, ed., CRC Press, Taylor & Francis Group, Boca Raton-London-New York, 2009, 229 p., $129.95)

DOI: 10.1134/S0006297910090130

The book contains 10 chapters considering a variety of forms of microarray technology.

Chapter 1 (R. Matson) is an introduction and briefly characterizes several types of microarray technology and previews the structure of the book.

Chapter 2 (R. Matson) highlights nucleic acid (NA) sample preparation. There are consideration of the protocols starting with NA extraction, purification, reagent preparation, and sample storage.

Chapter 3 (R. Matson) describes solid-phase substrates for nucleic acid microarrays.

Chapter 4 (R. Matson) contains data about protein sample preparation for microarrays.

Chapter 5 (R. Matson) considers solid-phase chemistries for protein microarrays.

Chapter 6 (P. Wadia and D. Miklos) highlights protein microarrays as a link between genomics and proteomics.

Chapter 7 (Y. Song) is devoted to bed arrays and includes bed-based assays for proteins.

Chapter 8 (D. Wang) describes carbohydrate arrays and includes design and construction of sugar arrays, micro spotting of carbohydrates onto bioarrays, printing of carbohydrate arrays onto nitrocellulose slides, and other methods.

Chapter 9 (N. Yamada) focuses on lectin microarrays. It includes protocols on extraction of glycoproteins from cultivated cells, culture supernatant, applying samples to a LecChip, scanning with a GlycoStation reader 1200, and testing for artifacts.

Chapter 10 (T. Martinsky) highlights printing methods.

Each chapter contains basic protocols related to book topics, and two appendixes contain microarray reagents, materials, equipment sources, and image analysis. There is subject index at the end of the book.

The book also includes a detailed *How it works* section that discusses the underlying principles of a number of techniques. Troubleshooting guides offer additional advice for successful performance of more than 100 protocols in 10 chapters that cover work involving nucleic acids, proteins, carbohydrates, and lectins. This authoritative resource provides detailed information regarding sample preparation, labeling, array construction processes, substrate chemistry, array printing, and quality control.

The book will be useful for researchers in protein chemistry and biochemistry, molecular biologists, and teachers and students of medical schools and universities specializing in microarray methods.

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