FOOD ALLERGENS

Methods and Protocols Series: Methods in Molecular Biology

Jing Lin, Marcos Alcocer (Eds.). SPRINGER. 1st ed. 2017, X, 299 p. 44 illus., 20 illus. in color.

- Includes cutting-edge methods and protocols
- Provides step-by-step detail essential for reproducible results
- Contains key notes and implementation advice from the experts.

This volume provides a collection of methodologies for basic research, clinical diagnosis, and treatment pertaining to food allergens, including food allergen production, purification, characterization, detection, quantification, and bioinformatics approaches to modern food allergen studies. The chapters in the book are divided into 4 parts: Part I discusses food allergen purification and production, and explores methods of producing recombinant food allergens in bacterial and yeast expression systems; Part II looks at allergen discovery, detection, and quantification covering 3 types of methods-DNA-, protein-, and cellbased methods; Part III focuses on allergenic epitope mapping; and Part IV talks about future developments concentrated around new concepts of allergenicity as an outcome of protein and food matrix interactions. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Cutting-edge and comprehensive, Food Allergens: Methods and Protocols is a valuable resource for immunologists, biochemists, molecular biologists, and medical doctors and students working in the food allergy field. This book is also useful for people in the food industry, legislators, food standard agencies, allergologists, pediatricians, and clinicians in the allergic diseases and immunology fields.