

1. Record Nr.	UNINA9911154788503321
Titolo	Microbial Toxins : Methods and Protocols / / edited by Otto Holst
Pubbl/distr/stampa	New York, NY : , : Springer New York : , : Imprint : Humana, , 2017
ISBN	9781493969586 1493969587
Edizione	[2nd ed. 2017.]
Descrizione fisica	1 online resource (XI, 201 p. 71 illus., 28 illus. in color.)
Collana	Methods in Molecular Biology, , 1940-6029 ; ; 1600
Disciplina	579
Soggetti	Microbiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Detection of Cholera Toxin by an Immunochromatographic Test Strip -- Electrochemical Aptamer Scaffold Biosensors for Detection of Botulism and Ricin Proteins -- A Cell-Based Fluorescent Assay to Detect the Activity of AB Toxins that Inhibit Protein Synthesis -- Molecular Methods for Identification of Clostridium tetani by Targeting Neurotoxin -- Label-Free Immuno-Sensors for the Fast Detection of Listeria in Food -- Aptamer-Based Trapping: Enrichment of Bacillus cereus Spores for Real-Time PCR Detection -- Detection of Yersinia pestis in Complex Matrices by Intact Cell Immunocapture and Targeted Mass Spectrometry -- A Method to Prepare Magnetic Nanosilicate Platelets for Effective Removal of Microcystis aeruginosa and Microcystin LR -- An Immunochromatographic Test Strip to Detect Ochratoxin A and Zearalenone Simultaneously -- Endotoxin Removal from Escherichia coli Bacterial Lysate using Biphasic Liquid System -- Fourier Transform Infrared Spectroscopy as a Tool in Analysis of Proteus mirabilis Endotoxins -- Laser Interferometry Method as a Novel Tool in Endotoxin Research -- Endotoxin Entrapment on Glass via C18 Self-Assembled Monolayers and Rapid Detection using Drug-Nanoparticle Bioconjugate Probes -- A Bioassay for Determination of Lipopolysaccharides and Lipoproteins -- Capillary Electrophoresis Chips for Fingerprinting Endotoxin Chemotypes and Subclasses -- Micromethods for Isolation and Structural Characterization of Lipid A, and Polysaccharide Regions of Bacterial Lipopolysaccharides -- Mass Spectrometry for Profiling LOS and Lipid A Structures from Whole-Cell

Lysates: Directly from a Few Bacterial Colonies or from Liquid Broth Cultures.

Sommario/riassunto

This second edition volume expands on the previous editions with detailed protocols on (cyano) bacterial and mold fungus toxins, and a specific focus on Gram-negative endotoxins (lipopolysaccharides). The chapters in *Microbial Toxins: Methods and Protocols, Second Edition* present techniques that cover topics such as detection of cholera toxin by an immunochromatographic test strip; label-free immune-sensors for the fast detection of *Listeria* in food; endotoxin removal from *Escherichia coli* bacterial lysate using biphasic liquid system; and micromethods for isolation and structural characterization of lipid A, and polysaccharide regions of bacterial lipopolysaccharides. 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 practical, *Microbial Toxins: Methods and Protocols, Second Edition* is a valuable and useful resource for scientists who are interested in this field, and is a great tool for researchers who are looking to learn about new, particular techniques to further enhance their work.
