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EWING ASIA

Antibody Drug Discovery Academic Press
In Antibody Phage Display expert researchers explore the latest in this cutting-edge technology, providing an invaluable resource that will guide readers in the design and execution of experiments based around antibody phage display.
Antibody Engineering Academic Press
This highly readable textbook serves as a concise and engaging primer to the emerging field of antibody engineering and its various applications. It introduces readers to the basic science and molecular structure of antibodies, and explores how to characterize and engineer them. Readers will find an overview of the latest methods in antibody identification, improvement and biochemical engineering. Furthermore, alternative antibody formats and bispecific antibodies are discussed. The book's content is based on lectures for the specializations "Protein Engineering" and "Medical Biotechnology" within the Master's curriculum in "Biotechnology." The lectures have been held at the University of Natural Resources and Life Sciences, Vienna, in cooperation with the Medical University of Vienna, since 2012 and are continuously adapted to reflect the latest developments in the field. The book addresses Master's and PhD students in biotechnology, molecular biology and immunology, and all those who are interested in antibody engineering.
Antibody Phage Display Karger Publishers
Vectors: A Survey of Molecular Cloning Vectors and Their Uses focuses on the functions of molecular cloning vectors. The book first discusses bacterial plasmid pBR322. Topics include criteria for plasmid vector design, construction and structure, transcriptional signals, DNA replication, recombination, mobilization, and plasmid stability. The text also examines bacteriophage lambda cloning vectors; filamentous phages as cloning vectors; chimeric single-stranded DNA phage-plasmid cloning vectors; and phage-plasmid hybrid vectors. The selection discusses cosmids and plasmid positive selection vectors, including library and construction, cosmid rescue, and positive

selection vectors using plasmid-encoded lethal function. The text also examines vectors for regulating expression of cloned DNA, including lambda promoters, secretion vectors, and protein fusion vectors. The book takes a look at vectors with adjustable copy numbers. Copy number and protein production; adjustable copy number vectors; future expression vectors; rate-limiting steps of protein production; and promoters and ribosome binding sites are explained. The text puts emphasis on vectors for the synthesis of specific RNAs in vitro and cloning vectors for gram-positive bacteria. The selection is a valuable source of data for readers interested in molecular cloning vectors.

Monoclonal Antibodies Springer Science & Business Media

Ranging from the evolution of pathogenicity to oceanic carbon cycling, the many and varied roles that bacteriophages play in microbial ecology and evolution have inspired increased interest within the scientific community. Bacteriophages: Methods and Protocols pulls together the vast body of knowledge and expertise from top international bacteriophage researchers to provide both classical and state-of-the-art molecular techniques. With its well-organized modular design, Volume 2: Molecular and Applied Aspects examines a multitude of topics, including the bacteriophage genomics, metagenomics, transcriptomics, and proteomics, along with applied bacteriophage biology. Written in the highly successful Methods in Molecular BiologyTM series format, chapters consist of brief introductions to the subject, lists of the necessary materials and reagents, readily reproducible laboratory protocols, and a Notes section which details tips on troubleshooting and avoiding known pitfalls. Thorough and cutting-edge, Bacteriophages: Methods and Protocols is a valuable reference for experienced bacteriophage researchers as well as an easily accessible introduction for newcomers to the subject.

Antibody Phage Display Humana

Real-time and reliable detection of molecular compounds and bacteria is essential in modern environmental monitoring. For rapid analyses, biosensing devices combining high selectivity of biomolecular recognition and sensitivity of modern signal-detection technologies offer a promising platform. Biosensors allow rapid on-site detection of pollutants and provide potential for better understanding of the environmental processes, including the fate and transport of contaminants.This book, including 12 chapters from 37 authors, introduces different biosensor-based technologies applied for environmental analyses.

Introduction to Antibody Engineering Frontiers Media SA

Both novices and experts will benefit from this insightful step-by-step discussion of phage display protocols.Phage Display of Peptides and Proteins: A Laboratory Manual reviews the literature and outlines the strategies for maximizing the successful application of phage display technology to one's research. It contains the most up-to-date protocols for preparing peptide affinity reagents, monclonal antibodies, and evolved proteins. - Prepared by experts in the field - Provides proven laboratory protocols, troubleshooting, and tips - Includes maps, sequences, and sample data - Contains extensive and up-to-date references

Antibody Engineering Volume 1 Springer Science & Business Media

This eBook is a collection of articles from a Frontiers Research Topic. Frontiers Research Topics are very popular trademarks of the Frontiers Journals Series: they are collections of at least ten articles, all centered on a particular subject. With their unique mix of varied contributions from Original Research to Review Articles, Frontiers Research Topics unify the most influential researchers, the latest key findings and historical advances in a hot research area! Find out more on how to host your own Frontiers Research Topic or contribute to one as an author by contacting the Frontiers Editorial Office: frontiersin.org/about/contact.

Peptide, Protein and Enzyme Design CRC Press

The first and only guide to showcase the impact of phage display technology on drug discovery, this reference details the theories, principles, and methods impacting the field and demonstrates applications for peptide phage display, protein phage display, and the development of novel antibodies. Highlighting the current and future role of phage dis

Therapeutic Antibodies Humana

De Novo Enzyme Design, the newest volume in the Methods in Enzymology series, continues the legacy of this premier serial with quality chapters authored by leaders in the field. This volume includes the design of metal binding maquettes, insertion of non-natural cofactors, Cu metallopeptides, non-covalent interactions in peptide assemblies, peptide binding and bundling, heteronuclear metalloenzymes, florinated peptides, De Novo imaging agents, and protein-protein interaction. - Continues the legacy of this premier serial with quality chapters on de novo enzyme design - Represents the newest volume in the Methods in Enzymology series, providing premier, quality chapters authored by leaders in the field - Ideal reference for those interested in the study of enzyme design that looks at both structure and mechanism

Phage Display Humana Press

This comprehensive collection of established antibody phage display protocols features authoritative guidance that will enable the nonspecialist successfully to carry them out. Coverage spans the construction of antibody libraries, the selection of antibody clones with the desired properties, and their modification, expression, and purification. Comprehensive and highly practical, Antibody Phage Display: Methods and Protocols provides biochemists, molecular biologists, and immunologists with a gold-standard reference guide to the successful isolation, modification, and expression of recombinant antibodies using today's powerful phage display technology.

Diagnostic and Therapeutic Antibodies Humana Press

The closing years of the 19th century and the start of the 20th century witnessed the emergence of microbiology and immunology as discrete sci- tific disciplines, and in the work of Roux and Yersin, perhaps the first benefits of their synergy—immunotherapy against bacterial infection. As we advance into the new millennium, microbiology and immunology again offer a c- ceptual leap forward as antibody phage display gains increasing acceptance as the definitive technology for monoclonal production and unleashes new - portunities in immunotherapy, drug discovery, and functional genomics. In assembling Antibody Phage Display: Methods and Protocols, we have aimed to produce a resource of real value for scientists who have followed the development of phage display technology over the past decade. The founding principles of phage display have always held an elegant simplicity. We hope that readers will find similar clarity in the technical guidance offered by the book’s contributors. In meeting our objectives, we have tried to cover the broad scope of the technology and the key areas of library construction, scre- ing, antibody modification, and expression. Of course, the technology cont- ues to advance apace, but we trust that readers will be able to gage the potential of phage display from our coverage, that some of its subtleties will emerge, and that our selection of methods will prove appealing. We are indebted to all the contributing

authors for sharing their expertise with the wider scientific community.
Molecular Biology of the Cell Humana
This second edition details new and updated methods on different antibody libraries, along with novel approaches for antibody discovery. Chapters focuses on the construction of antibody libraries, antibody expression, complementary approaches for antibody selection, and other phage display related applications. 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 key tips on troubleshooting and avoiding known pitfalls. Authoritative and cutting-edge, Phage Display: Methods and Protocols, Second Edition aims to be a useful and practical guide to new researchers and experts looking to expand their knowledge.
Vectors OUP Oxford
This new book is designed to enable researchers to design and undertake all aspects of a phage display project, from designing an experimental strategy and constructing a library to performing selections and analyzing the results.All of the protocols and chapters are extensively cross-referenced, allowing readers to move beyond the specific examples provided in order to customize the procedures for their own protein or selection system of interest. Phage Display is an up-to-date, comprehensive and integrated experimental guide to the technique, which is essential reading for anyone currently using, or wishing to use the technique for basic research and drug discovery.
Handbook of Immunoassay Technologies Humana Press
Since its introduction almost 20 years ago, phage display technology has revolutionized approaches to the analysis of biomedical problems, quickly impacting the fields of immunology, cell biology, biotechnology, pharmacology, and drug discovery. In Antibody Phage Display: Methods and Protocols, Second Edition, expert researchers explore the latest in this cutting-edge technology, providing an invaluable resource that will guide readers in the design and execution of experiments based around antibody phage display. Chapters present a wide range of methods of isolating recombinant antibodies from phage display libraries, examine how the targets recognized by antibodies of interest can be identified, discuss the identification and exploitation of antibodies that can enter cells and bind to cytosolic targets, and include novel approaches to the expression of recombinant antibodies. Composed in the highly successful Methods in Molecular BiologyTM series format, each chapter contains a brief introduction, step-by-step methods, a list of necessary materials, and a Notes section which shares tips on troubleshooting and avoiding known pitfalls. Detailed and innovative, Antibody Phage Display: Methods and Protocols, Second Edition is a critical handbook on phage display technology which is certain to stimulate the reader’s imagination as much as it will guide future practice in the laboratory.
Combinatorial Peptide Library Protocols Elsevier
Monoclonal Antibodies: Methods and Protocols, Second Edition expands upon the previous edition with current, detailed modern approaches to isolate and characterize monoclonal antibodies against carefully selected epitopes. This edition includes new chapters covering the key steps to generate high quality monoclonals via different methods, from antigen generation to epitope mapping and quality control of the purified IgG. Chapters are divided into four parts corresponding to four distinct objectives. Part I covers monoclonal antibody generation, Part II deals with monoclonal antibody expression and purification, Part III presents methods for monoclonal antibody characterization and modification, and Part IV describes selected applications of monoclonal antibodies. 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. Authoritative and practical, Monoclonal Antibodies: Methods and Protocols, Second Edition provides crucial initial steps of monoclonal antibody generation and characterization with state-of-the art protocols.
Therapeutic Monoclonal Antibodies CSHL Press
Introduction to immunochemistry for molecular biologists and other nonspecialists. Spiral.
Monoclonal Antibody Production Humana
Antibodies are indispensable tools for research, diagnosis, and therapy. Recombinant approaches allow the modification and improvement of nearly all antibody properties, such as affinity, valency, specificity, stability, serum half-life, effector functions, and immunogenicity. "Antibody Engineering" provides a comprehensive toolbox covering the well-established basics but also many exciting new techniques. The protocols reflect the latest "hands on" knowledge of key laboratories in this still fast-moving field. Newcomers will benefit from the proven step-by-step protocols, which include helpful practical advice; experienced antibody engineers will appreciate the new ideas and approaches. The book is an invaluable resource for all those engaged in antibody research and development.
Peptide Antibodies Humana
Soon after the first description of monoclonal antibodies in 1976, there was enormous interest in the clinical application of antibodies, especially in the context of cancer. Antibodies appeared to offer the “magic bullet” that would allow the specific destruction of neoplastic cells. H- ever, many years’ effort resulted in very few cases of successful immu- therapy with antibodies. As a result there was a major backlash against antibody therapy, and the field lost a considerable amount of popularity. Fashion, in science as well as in other things, tends to be cyclical. Antibody-based therapy is once again attracting scientists and clinicians. There are several reasons for the renewed optimism; certainly the expe- ence of the last two decades has provided a wealth of information about problems associated with antibody therapy, and possible solutions to these problems. Recombinant antibody engineering has rejuvenated the field, allowing both the modification of antibodies to improve their in vivo pr- erties and the isolation of novel antibody molecules by such techniques as phage display. The results of recent clinical trials have demonstrated unequivocally the benefit of antibody therapy in a number of settings, and, finally, more careful consideration has been taken of the types of disease best treated using this approach.
Harnessing the Power of Viruses Butterworth-Heinemann
The field of antibody engineering has become a vital and integral part of making new, improved next generation therapeutic monoclonal antibodies, of which there are currently more than 300 in clinical trials across several therapeutic areas. Therapeutic antibody engineering examines all aspects of engineering monoclonal antibodies and analyses the effect that various genetic engineering approaches will have on future candidates. Chapters in the first part of the book provide an introduction to monoclonal antibodies, their discovery and

development and the fundamental technologies used in their production. Following chapters cover a number of specific issues relating to different aspects of antibody engineering, including variable chain engineering, targets and mechanisms of action, classes of antibody and the use of antibody fragments, among many other topics. The last part of the book examines development issues, the interaction of human IgGs with non-human systems, and cell line development, before a conclusion looking at future issues affecting the field of therapeutic antibody engineering. - Goes beyond the standard engineering issues covered by most books and delves into structure-function relationships - Integration of knowledge across all areas of antibody engineering, development, and marketing - Discusses how current and future genetic engineering of cell lines will pave the way for much higher productivity

Biosensors for Environmental Monitoring Methods in Molecular Biology 70-chapter authoritative reference that covers therapeutic monoclonal antibody discovery, development, and clinical applications while incorporating principles, experimental data, and methodologies. First book to address the discovery and development of antibody therapeutics in their entirety. Most chapters contain experimental data to illustrate the principles described in them. Authors provide detailed methodologies that readers can take away with them and use in their own laboratories.