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2.6.1 Covalent Chemical Coupling2.6.2 Photochemical Cross-Coupling; 2.6.3 Tagged Proteins; 2.6.4 Site-Specific Immobilization of Antibodies; 2.7 Conclusions; References; 3 Optimization of a Protein Microarray Platform Based on a Small-molecule Chemical Affinity System; 3.1 Introduction; 3.2 Experimental; 3.2.1 Reagents and Materials; 3.2.2 Comparison of the Intrinsic Fluorescence and Non-Specific Protein Binding of 2-D and 3-D SHA-Coated Glass Slides; 3.2.2.1 Preparation of 2D SHA-Coated Glass Surfaces; 3.2.2.2 Preparation of PDBA-modified Bovine Serum Albumin
3.2.2.3 Preparation of PDBA-modified Human IgG3.2.2.4 Printing and Development of 2-D and 3-D SHA-coated Glass Slides; 3.2.2.5 Comparison of the Intrinsic Flurescence of Unmodified, 2-D and 3-D SHA-coated Glass Slides; 3.2.2.6 Determination of the Non-Specific Protein Binding of 2-D and 3-D SHA-coated Glass Slides; 3.2.3 Immunoassay Using a 3-D SHA-coated Glass Slide; 3.2.3.1 Preparation of PDBA-Cy3-modified Bovine Serum Albumin, PDBA-Human IgG, PDBA-Goat anti Human IgG; 3.2.3.2 Printing the Array and Analyzing the Data
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3.3.3 Stability of PDBA-Protein Conjugates Immobilized on 3-D SHA-coated Glass Slides

Sommario/riassunto

This book is the first of its kind in the field of protein microarrays and addresses novel strategies for constructing highly functional and biocompatible microarrays for screening proteins. The list of authors consisting of world leading experts provide a roadmap for solving the complex challenges that are currently faced while monitoring protein-protein interactions over a wide range of microarray platforms. In doing so, they also offer a comprehensive overview of microarray surface chemistry, detection technologies, fabrication options for array development, and data analysis of numerous