Carbohydrate-Based Vaccines and Immunotherapies. Wiley Series in Drug Discovery and Development

Description: The fundamental science and the latest developments in carbohydrate-based vaccines

The relatively new field of glycoimmunology has emerged from the marriage of glycobiology and immunology, in recognition of the important role carbohydrates play as antigenic determinants. Carbohydrate-Based Vaccines and Immunotherapies comprehensively reviews the state of this exciting field, offering a single source for both the fundamental science and the latest developments.

With contributions by leading experts, this resource covers the design, synthesis, evaluation, and applications of various carbohydrate-based vaccines, including polysaccharides, neoglycoproteins, and neoglycolipids. The text approaches vaccine design from a chemical and molecular focus, staying in line with current advances.

Key topics covered by Carbohydrate-Based Vaccines and Immunotherapies include:

Recent developments towards clinically useful vaccines against bacteria, viruses, parasites, and fungi
Using adjuvants to improve immunogenicity and/or immunological properties of vaccines
Choosing and designing proper adjuvants for specific targets
Abnormal carbohydrates expressed by tumors
Carbohydrate-based therapeutic cancer vaccines or cancer immunotherapy
Clinical trials results for synthetic cancer vaccines
Glycoengineering of cell surface carbohydrates and its anticancer applications
Using cell surface carbohydrates for disease diagnosis

A single, convenient source of state-of-the-art information from leading authorities in the field, Carbohydrate-Based Vaccines and Immunotherapies is an essential reference for organic chemists and biochemists, academic researchers, and other students and professionals involved in vaccine design.

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