
BOOK REVIEW

Bioconjugation Protocols. Strategies and Methods

(Niemeyer, S. M. (ed.) in *Methods in Molecular Biology* (Walker, J., series ed.)
Vol. 283, Humana Press, 2004, 330 p., \$125.00)

This book consists of four parts, which include 23 chapters written by a representative international group of authors.

Part one consists of seven chapters that describe methods of preparation of protein conjugates. The first two chapters characterize streptavidin-biotin linked enzymes used as therapeutic agents. Antibodies are used as carriers delivering these therapeutic agents to the target tissue, an endothelial cell culture. Chapters 3-6 give information on polymer streptavidin conjugates and conjugates of peptides and proteins with polyethylene glycol; they also describe covalent binding of specific antibodies and preparation of immune conjugates using oligosaccharide component of antibodies. Chapter 7 deals with synthesis of hapten protein conjugates using microbial transglutaminase.

The second part of this book deals with various methods of preparations of nucleic acid conjugates.

These include: fluorescent DNA labeling and DNA labeling using methyltransferases, covalent binding of oligonucleotides to DNA-streptavidin conjugates, synthesis of oligonucleotide-peptides and oligonucleotide-protein conjugates, and other modifications of nucleic acids.

The third part of this book deals with glycosyl and lipid conjugates. Chapters of this part also describe methods of protein and peptide lipidation, preparation of synthetic lipoproteins, semisynthetic glycosylation of interleukin-2, and preparation of subtilisin glycopeptides.

Chapters of the fourth part describe methods of preparation of bifunctional surfaces of various inorganic subparticles: gold, carbon tubes, and other objects employed in various experiments and analyses.

This book will be useful for biochemists, bioorganic chemists, biotechnologists, and experts in proteomics and medicine.

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