
BOOK REVIEW

HPLC of Peptides and Proteins. Methods and Protocols

(Aguilar, M.-I. (ed.), in "Method in Molecular Biology", Vol. 251 (Walker, J., Series Editor), Humana Press, 2004, 413 p., \$99.50 (Hardcover))

This handbook describes practical approaches to one of the most widely developed and used methods for purification and analysis of proteins and peptides—high performance liquid chromatography (HPLC).

The book consists of three parts, which include 27 chapters, written by internationally distinguished authors. The first part, which consists of nine chapters, deals with theory of HPLC and characteristics of variations of this method that are employed for analyses of peptides and proteins. Some chapters of this part analyze reversed-phase, ion-exchange, hydrophilic, and immunoaffinity types of HPLC. Chapter 9, the final chapter of the first part, deals with analysis of peptides and proteins using HPLC—mass-spectrometry and tandem mass spectrometry.

The second part of this book (chapters 10–15) includes analyses of methods for preparative and analytic separation of peptides and proteins by means of capillary liquid HPLC and micro-preparative and multimeric HPLC. The latter type of HPLC includes sequential stages of peptide and protein purification using various

types of chromatography: size-exclusion, ion-exchange, and hydrophobic chromatography.

The third part of the book (chapters 16–27) contains many examples of the use of various types of HPLC and its combination with mass spectrometry for purification and analysis of peptides, proteins, glycoproteins, immunoglobulins (IgG), and enzymes (RNA polymerase, histidine decarboxylase).

The structure of each chapter includes an introduction with short theoretical background for a certain type of HPLC, detailed protocol for each experiment containing all necessary materials, and also the authors' comments and bibliography. Detailed protocols help researchers become competent in the corresponding HPLC methods. This book is well illustrated with many schemes, figures, and numerous chromatographic profiles of separated proteins and peptides. The alphabetical index helps rapid orientation in the book.

I am confident that this book will be useful for various specialists in proteomics, biochemistry, protein chemistry, and biotechnology.

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