

Ian M. Rosenberg

Protein Analysis and Purification

BENCHTOP
TECHNIQUES



SECOND EDITION

Birkhäuser

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Second Edition

IAN M. ROSENBERG

and

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To Mireille, Ella, and Dina

Preface

How one goes about analyzing proteins is a constantly evolving field that is no longer solely the domain of the protein biochemist. Investigators from diverse disciplines find themselves with the unanticipated task of identifying and analyzing a protein and studying its physical properties and biochemical interactions. In most cases, the ultimate goal remains understanding the role(s) that the target protein is playing in cellular physiology.

It was my intention that this manual would make the initial steps in the discovery process less time consuming and less intimidating. This book is not meant to be read from cover to cover. The expanded Table of Contents and the index should help locate what you are seeking. My aim was to provide practically oriented information that will assist the experimentalist in benchtop problem solving.

The appendices are filled with diverse information gleaned from catalogs, handbooks, and manuals that are presented in a distilled fashion designed to save trips to the library and calls to technical service representatives. The user is encouraged to expand on the tables and charts to fit individual experimental situations.

This second edition pays homage to the computer explosion and the various genome projects that have revolutionized how benchtop scientific research is performed. Bioinformatics and *In silico* science are here to stay. However, the second edition still includes recipes for preparing buffers and methods for lysing cells.

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Boston, MA


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I would like to thank Paula Callaghan for giving me the opportunity to correct the first edition and bring this manual into the new millennium. Thanks also go to Barbara Chernow who has guided me through the final steps of this project, and special thanks to my accountant.

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 **Toxic substances are used.** Exercise caution when handling. Refer to Appendix A for further safety tips.

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