

Methods in ENZYMOLOGY

Volume 198

Peptide Growth Factors

Part C

Edited by

David Barnes

J. P. Mather

Gordon H. Sato

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Preface

Peptide Growth Factors, Part C, is a supplement to and update of Volumes 146 and 147 of *Methods in Enzymology*. As such, the aims and general organization remain the same, although there is a greater emphasis in this volume on molecular biological techniques and, to some extent, on techniques for *in vivo* studies. Major additions that reflect the direction of recent advances in the field include a separate section dealing with the EGF receptor and a number of chapters on growth inhibitors. Contributions are also included on the TGF beta-related peptides, activin, inhibin, and Müllerian inhibiting substance, serving to point out that the field of peptide growth factors really represents an extension of classic endocrinology.

The volume is divided into sections dealing with specific growth factors in which new, updated, or alternative procedures are presented for purification, bioassay, radiolabeling, and radioreceptor assay, immunoassay, receptor identification, and quantitation. These are followed by a section dealing with general techniques for the study of growth factors. In a few cases, such as situations in which oncogene products are treated as growth factors, we have included orientation chapters as introductions to the area for those unfamiliar with the oncogene-growth factor relationship.

As in the previous volumes, we have not addressed the specific growth factors of lymphoid cells, since these are covered in the Immunochemical Techniques volumes of *Methods in Enzymology*. Recently, the distinction between these factors and the growth factors covered in our volumes has become less marked, and investigators interested in the subject may wish to consult the other volumes for helpful procedures. Likewise, we have not attempted to cover completely the growth factor-related aspects of phospholipases, protein phosphorylation, G proteins, neuroendocrine peptides, calcium regulation or platelets, because volumes of *Methods in Enzymology* dealing with these topics have appeared since publication of Volumes 146 and 147. In article [50] a list of previous articles of *Methods in Enzymology* related to peptide growth factors is given.

We thank the authors who submitted chapters for this volume, particularly those who did so on time, and the authors who pleasantly tolerated our merciless attempts to condense chapters in order to reduce the size of the volume. We also thank the Editors-in-Chief, the staff of Academic

Press, who helped greatly with the details of preparation, and Emily Amonett-Wood, who kept it all organized. Finally, we wish to acknowledge our continuing debt to the late Sidney Colowick and Nate Kaplan. Many times in the preparation of this volume we were reminded of the countless ways in which Sidney and Nate helped bring out the best in those around them.

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