

Methods in Enzymology

Volume XXXIX

HORMONE ACTION

Part D

Isolated Cells, Tissues, and Organ Systems

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Isolated Cells, Tissues, and Organ Systems

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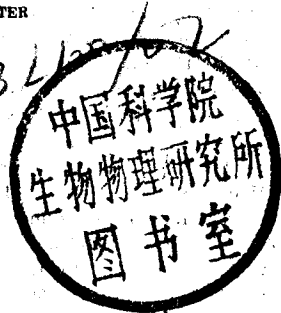
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Preface

Our aim in compiling this volume was to provide a source of descriptions and critical evaluations of currently useful intact cell systems and general techniques applicable to the study of hormone action on biochemical and biophysical parameters of intact cells. Many of these systems and techniques will be useful for studying the actions of a variety of hormones, neurotransmitters, and pharmacological agents. Others will be suitable primarily for investigators whose interests are confined to actions of a single hormone or class of hormones.

The hormone-responsive systems described represent most mammalian organ systems and include tissue slices, isolated cells, isolated perfused and nonperfused organs and organ fragments, cell and organ cultures, and *in situ* organ preparations. The general techniques described, for example those involving measurement of substrate and calcium fluxes, generally involve processes that are sensitive to modulation by hormones or neurotransmitters in a variety of cell types.

Omissions have inevitably occurred—some because potential authors were overcommitted, some because of editorial oversight, some because of the timing of new developments relative to the publication deadline. Some apparent omissions, particularly those involving the isolation and culture of cells, can be found in Volume XXXII.

We thank Drs. S. P. Colowick and N. O. Kaplan who originated the idea for and encouraged the compilation of this volume. We thank the staff of Academic Press for their help and advice. We especially thank the contributing authors for their patience and full cooperation and for carrying out the research that made this volume possible.

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METHODS IN ENZYMOLOGY

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- I. Preparation and Assay of Enzymes
- II. Preparation and Assay of Enzymes
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- V. Preparation and Assay of Enzymes
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Kidney

