

Contents

Preface	v
Contributors.....	ix
CH. 1. The Problems and Pitfalls of Radioligand Binding <i>Mary Keen</i>	1
CH. 2. Solubilization and Purification of a Functional Ionotropic Excitatory Amino Acid Receptor <i>Jeremy M. Henley and David M. Kirkham</i>	17
CH. 3. Autoradiography of β_1 - and β_2 -Adrenoceptors <i>Roger J. Summers and Peter Molenaar</i>	25
CH. 4. <i>In Situ</i> Hybridization <i>Brian J. Morris</i>	41
CH. 5. Measurement of the GTPase Activity of Signal-Transducing G-Proteins in Neuronal Membranes <i>Marva Sweeney</i>	51
CH. 6. Measurement of Adenylyl Cyclase Activity in Cell Membranes <i>Robert J. Williams and Eamonn Kelly</i>	63
CH. 7. The Measurement of Cyclic AMP Levels in Biological Preparations <i>Stephen P. H. Alexander</i>	79
CH. 8. Mass Measurements of Cyclic AMP Formation by Radioimmunoassay, Enzyme Immunoassay, and Scintillation Proximity Assay <i>Jeffrey K. Horton and Peter M. Baxendale</i>	91
CH. 9. Measurement of Cyclic GMP Formation <i>Félix Hernández</i>	107
CH. 10. Cyclic AMP-Dependent Protein Kinase Activity Ratio Assay <i>Kenneth J. Murray</i>	113
CH. 11. Purification and Activation of Cyclic GMP-Dependent Protein Kinase <i>Takayoshi Kuno and Hideyuki Mukai</i>	123
CH. 12. The Analysis and Assay of Cyclic Nucleotide Phosphodiesterase Isoenzyme Activity <i>Mohammed Shahid and C. David Nicholson</i>	129

CH. 13.	Separation of Labeled Inositol Phosphate Isomers by High-Pressure Liquid Chromatography (HPLC) <i>Stephen Jenkinson</i>	151
CH. 14.	Mass Measurement of Key Phosphoinositide Cycle Intermediates <i>R. A. John Challiss</i>	167
CH. 15.	Measurement of Phospholipase C Activity in Brain Membranes <i>Enrique Claro, Elisabet Sarri, and Fernando Picatoste</i>	177
CH. 16.	Measurement of Diacylglycerol: <i>Origins of Receptor-Stimulated Diacylglycerol Accumulation</i> <i>Michael R. Boarder and John R. Purkiss</i>	189
CH. 17.	Measurement of Intracellular Free Calcium Ion Concentration in Cell Populations Using Fura-2 <i>Philip A. Iredale and John M. Dickenson</i>	203
CH. 18.	Measurement of Ca^{2+} Fluxes in Permeabilized Cells Using $^{45}\text{Ca}^{2+}$ and Fluo-3 <i>Robert A. Wilcox, James Strupish, and Stefan R. Nahorski</i>	215
CH. 19.	Single-Cell Calcium Imaging <i>Katrina A. Marsh</i>	229
CH. 20.	Characterization of Calcium/Calmodulin-Stimulated Protein Kinase II <i>Paula E. Jarvie and Peter R. Dunkley</i>	239
CH. 21.	Protein Kinase C: <i>Measurement of Translocation, Activation, and Role in Cellular Responses</i> <i>Sandra E. Wilkinson and Trevor J. Hallam</i>	261
CH. 22.	The Measurement of Phospholipase D-Linked Signaling in Cells <i>Michael J. O. Wakelam, Matthew Hodgkin, and Ashley Martin</i>	271
CH. 23.	Phospholipase A_2 Activity <i>Ronald M. Burch</i>	279
CH. 24.	Techniques for the Measurement of Nitric Oxide <i>Anna M. Leone, Peter Rhodes, Vanessa Furst, and Salvador Moncada</i>	285
Index		301