



Bioactive Lipid Mediators [Current Reviews and Protocols

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Life sciences

Human physiology

Lipids

Cell biology

Life Sciences

Lipidology

Cell Biology

Human Physiology

Monografía

This book summarizes the most recent progress in the studies of lipid mediators from the molecular to clinical level and introduces newly created tools for analysis including imaging mass spectrometry. Comprising 29 chapters divided into four major parts, the book describes the molecular natures of enzymes, transporters, and receptors for lipid mediators (Part I), the function of lipid mediators in *Drosophila* and Zebrafish (Part II), the relationships between lipid mediators and various diseases (Part III), and detailed procedures of extraction, preparation, and quantification of lipid mediators (Part IV). Research on lipid mediators initially started with analysis of the action of aspirin, and subsequent biochemical experiments identified many enzymes and receptors responsible for the biosynthesis and signal transduction of individual lipid mediators. Through the phenotypic analyses of transgenic and knockout mice, it has been shown that the dysregulation of some lipid mediators causes inflammatory, immune, or oncogenic disorders. Lipid mediators have attracted increased attention because their structures are conserved among different species, and their biosynthetic and signaling pathways have been deciphered at the molecular level. Many drugs that target lipid mediators are already being used in hospitals, and this book suggests further possibilities for development of a wide variety of such drugs. Very recently, highly sensitive mass spectrometry has begun to be used to identify novel lipid mediators that are present only in trace amounts in tissues but with robust biological activity. Written by international experts, this book provides readers a comprehensive view of lipid mediators and related topics and helps in the process of determining research targets for the near future

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Contenido: PART I ENZYMES AND RECEPTORS FOR LIPID MEDIATORS -- 1 Lysophospholipid Acyltransferases -- 2 Phospholipase A2 -- 3 Prostaglandin Terminal Synthases as Novel Drug Targets -- 4 Pathophysiological Roles of Prostanoid Receptors in the Central Nervous System -- 5 Lipoxygenases: A Chronological Perspective on the Synthesis of S and R Fatty Acid Hydroperoxides -- 6 Leukotriene B4 Receptors -- 7 Platelet-Activating Factor (PAF) in Infectious Diseases -- 8 Lysophospholipid Mediators: Their Receptors and Synthetic Pathways -- 9 Sphingolipid Metabolism via Sphingosine 1-Phosphate and Its Role in Physiology, Pathology, and Nutrition -- 10 Fatty Acids Receptors -- 11 Omega-3 Fatty Acid Metabolism and Regulation of Inflammation -- PART II LIPID MEDIATORS IN DROSOPHILA AND ZEBRAFISH -- 12 Membrane Lipid Transporters in Drosophila melanogaster -- 13 Drosophila: A Model for Studying Prostaglandin Signaling -- 14 Zebrafish as a Model Animal for Studying Lysophosphatidic Acid Signaling -- 15 Sphingosine 1-Phosphate Signaling via Transporters in Zebrafish and Mice -- PART III LIPID MEDIATORS AND DISEASES -- 16 Lipid Mediator LPA-Induced Demyelination and Self-Amplification of LPA Biosynthesis in Chronic Pain Memory Mechanisms -- 17 Vascular Endothelial S1P2 Receptor Limits Tumor Angiogenesis and Hyperpermeability -- 18 Roles of Prostaglandins in Regulation of Pathological Angiogenesis and Lymphangiogenesis -- 19 Eicosanoids and Aortic Aneurysm -- 20 Cysteinyl Leukotrienes and Disease -- 21 Lipid Mediators and Skin Diseases -- 22 Roles and Actions of Arachidonic Acid-Derived Bioactive Lipids in Stress-Related Behaviors -- PART IV PROTOCOLS FOR ANALYZING LIPID MEDIATORS -- 23 Basic Techniques for Lipid Extraction from Tissues and Cells -- 24 Comprehensive Analysis of Eicosanoids -- 25 Mass Spectrometric Analysis of Phospholipids by Target Discovery Approach -- 26 Determination of Sphingolipids by LC-MS/MS -- 27 Lipid Machinery Investigation Using MALDI Imaging Mass Spectrometry. 28 Measuring Activation of Lipid G Protein-Coupled Receptors Using the TGF-Shedding Assay -- 29 A Novel Anti-FLAG Monoclonal Antibody is Useful to Study GPCRs -- Index

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