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Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Phospholipases in Health and Disease -- Role of Phospholipases in Regulation of Cardiolipin Biosynthesis and Remodelling in the Heart and Mammalian Cells -- Role of Phospholipases and Oxidized Phospholipids in Inflammation -- Phospholipases in Cardiovascular Disease -- The Structures and Functions of Intracellular Phospholipase A1 Family Proteins -- Phospholipase A and Breast Cancer -- Pathophysiological Aspects of Lipoprotein Associated Phospholipase A2: A Brief Overview -- Phospholipase A2 Activity Exhibited by a Bacterial Virulence Protein that Enters and Operates within a Variety of Host Cells -- Expression and Role of Phospholipase A2 in Central

Nervous System Injury and Disease -- Cytoplasmic Phospholipase A2 and Autotaxin Inhibitors as Potential Radiosensitizers -- Phospholipase A2 Enzymes: Potential Targets for Therapy -- The Role of Phospholipase C Isozymes in Cellular Homeostasis -- Phospholipase C in the Immune Cell -- Phosphoinositide-specific Phospholipase C Enzymes and Cognitive Development and Decline -- Where life begins: Sperm PLCz in mammalian egg activation and implications in male infertility -- Oocyte Activation and Phospholipase C zeta (PLC): Male Infertility and Implications for Therapeutic Intervention -- Phospholipase C Signaling in Heart Disease -- Activation of Phospholipase C in Cardiac Hypertrophy -- The Protective Effect of Phospholipase C From Cardiac Ischemia-Reperfusion Injury -- Role of Phospholipase C in Cardioprotection During Oxidative Stress -- Mammalian Phospholipase D: Structure, Regulation and Physiological Functions of Phospholipase D and its Link to Pathology -- Emerging Roles of Phospholipase D in Pathophysiological Signaling -- Alterations in Phospholipase D During the Development of Myocardial Disease.

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Sommario/riassunto

Phospholipases generate lipid signaling molecules through their hydrolytic action on phospholipids and are known to regulate function of a variety of cells under normal and diseased conditions. While several physiological, biochemical and molecular techniques have identified key players involved in different disease processes, phospholipases have also emerged as critical players in the pathogenesis of a number of different diseases including cancer and heart disease. In addition, phospholipases are also implicated in such conditions as brain disorder/injury, kidney and immune cell dysfunction. Phospholipases in Health and Disease is a compilation of review articles dedicated to the study of the field with respect to biochemical and molecular mechanisms of normal and abnormal cell function. The wide range of area covered here is of interest to basic research scientists, clinicians and graduate students, who are engaged in studying pathophysiological basis of a variety of diseases. Furthermore, this book highlights the potential of the different phospholipases as therapeutic targets as well as part of prevention strategies. Twenty three articles in this book are organized in four sections that are designed to emphasize the most characterized forms of the phospholipases in mammalian cells. The first section discusses general aspect of phospholipases. Section two covers the role and function of phospholipase A in different pathophysiological conditions. The third section is focussed on phospholipase C which is believed to play a central role in transmembrane signaling. The final section covers phospholipase D which is present in a variety of different cells. The book illustrates that the activation of phospholipases is of fundamental importance in signal transduction affecting cell function. Overall, this book discusses the diverse mechanisms of phospholipase mediated signal transduction in different pathophysiological conditions and raises the possibility of specific forms of phospholipases serving as novel targets for drug development.

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