1. Record Nr. UNINA9910141615303321

Titolo	Lysophospholipid receptors [[electronic resource]] : signaling and biochemistry / / edited by Jerold Chun ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2013
ISBN	1-118-53142-6 1-118-53135-3
Descrizione fisica	1 online resource (813 p.)
Altri autori (Persone)	ChunJerold <1959->
Disciplina	571.7/4
Soggetti	Cell receptors - Physiology Cell receptors - Metabolism Cellular signal transduction - Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title page; Copyright page; Contents; Preface; Contributors; CHAPTER 1: Lysophosphatidic Acid (LPA) Receptor Signaling; 1.1. Introduction; 1.2. LPA Metabolism; 1.3. Autotaxin; 1.4. LPA Receptors; 1.4.1. LPA1; 1.4.2. LPA2; 1.4.3. LPA3; 1.4.4. LPA4; 1.4.5. LPA5; 1.4.6. LPA6; 1.5. LPA Receptor Agonists and Antagonists; References; CHAPTER 2: Sphingosine 1-Phosphate (S1P) Receptors; 2.1. Introduction; 2.2. S1P Metabolism/Enzyme, and Transport; 2.2.1. S1P Metabolism and Enzymes; 2.2.2. Sphingosine Kinases; 2.2.3. S1P Phosphatases and S1P Lyase 2.3. S1P Receptor Subtypes, and Physiological Functions2.3.1. S1P1; 2.3.2. S1P2; 2.3.3. S1P3; 2.3.4. S1P4; 2.3.5. S1P5; 2.4. Concluding Remarks; References; CHAPTER 3: Global Gene Expression Program of Lysophosphatidic Acid (LPA)-Stimulated Fibroblasts; 3.1. Introduction; 3.2. The Global Transcriptional Response of MEFs to LPA; 3.3. Upregulated Genes; 3.4. Downregulated Genes; 3.5. Induction of Genes that Encode Secreted Factors; 3.6. Overlap between the Expression Profiles of LPA and EGF; 3.7. Conclusions; Acknowledgments; References CHAPTER 4: Identification of Direct Intracellular Targets of Sphingosine 1-Phosphate (S1P)4.1. Introduction; 4.2. Intracellular Targets for S1P; 4.3. Methods to Identify Intracellular S1P Targets; 4.3.1. S1P

Immobilized on Agarose Beads; 4.3.2. Binding of 32P-Labeled S1P to Targets; 4.3.3. Mass Measurement of Endogenous S1P in Immunoprecipitates of Target Proteins; 4.4. Other Potentially Useful Methods to Identify Lipid Binding Proteins; 4.4.1. Lipid Strips for Identification of Binding Proteins (Protein-Lipid Overlay)
4.4.2. Detection of Lipid Binding Proteins by Enzyme-Linked Immunadsorbent Assays4.4.3. Liposome Pull Down; 4.5. Concluding Remarks; Acknowledgments; References; CHAPTER 5: Lysophospholipid Receptor Signaling Platforms: The Receptor Tyrosine Kinase-G Protein-Coupled Receptor Signaling Complex; 5.1. Introduction; 5.2. Lysophospholipid Receptor-Receptor Tyrosine Kinase Complexes; 5.3. Other Lysophospholipid Receptor Signaling Platforms; 5.4. Other Examples of RTK-GPCR Signaling Platforms
5.5. Interaction of RGS Proteins with Receptor Tyrosine Kinase-Lysophospholipid Receptor Signaling Complexes5.6. S1P and RTK Transactivation; 5.7. Approaches for the Study of Receptor Tyrosine Kinase-Lysophospholipid Receptor Signaling Complexes; 5.8. Some Useful Protocols for Studying RTK-Lysophospholipid Receptor Signaling Platforms; 5.8.1. Compounds; 5.8.2. Cells; 5.8.3. Immunoprecipitation; 5.8.4. Immunofluorescence; 5.8.5. GTP--S Binding Assay; 5.8.6. Cell Migration; 5.9. Conclusion; Acknowledgment; References
CHAPTER 6: Autotaxin: A Unique Ecto-Type Pyrophosphodiesterase with Diverse Functions

Sommario/riassunto

"This state-of-the-art reference addresses lysophospholipids, a special kind of fat that has been found to have a growing number of receptors within the cell and that has important, natural roles in the body, being essential for normal reproduction, development, maturation and life. This book covers the biochemistry, interactions, and signaling of lysophospholipids as well as its potential for producing new therapies for a range of medically important human diseases. Bringing together current knowledge in lysophospholipid signaling, this represents a must-have book for all academic, industrial, and medical school and hospital libraries"--Provided by publisher.