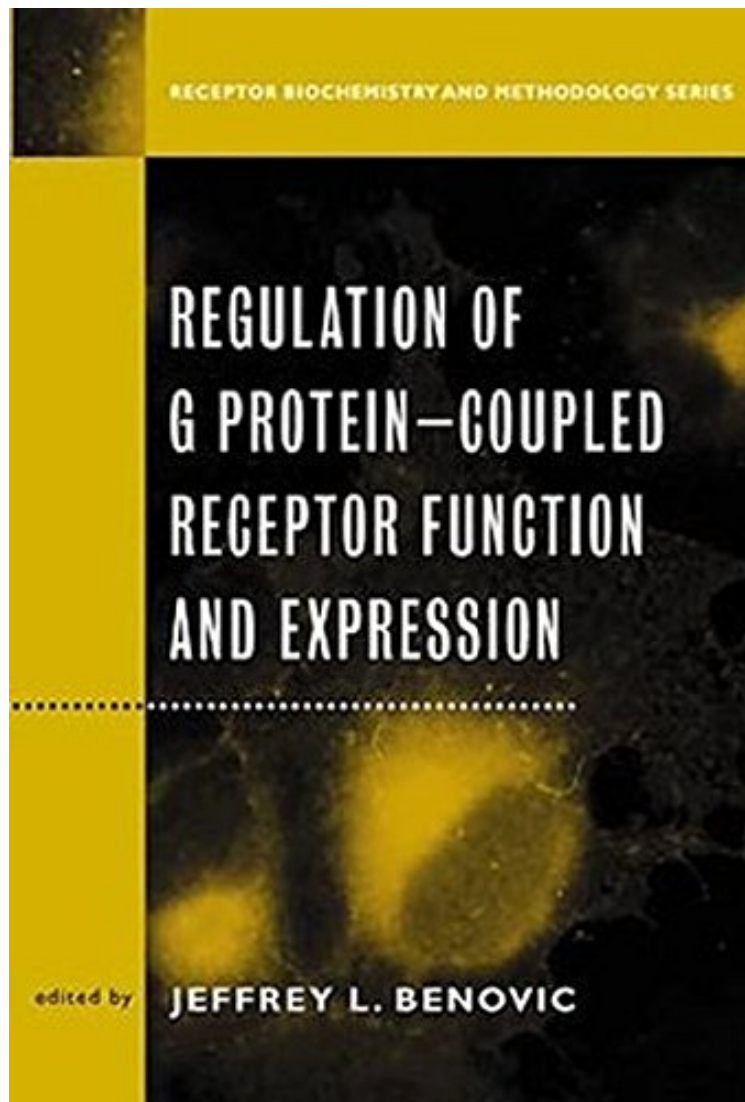


[E-BOOK] Regulation of G Protein Coupled Receptor Function and Expression: Receptor Biochemistry and Methodology

Regulation of G Protein Coupled Receptor Function and Expression: Receptor Biochemistry and Methodology

Jeffrey L. Benovic

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Jeffrey L. Benovic : Regulation of G Protein Coupled Receptor Function and Expression: Receptor Biochemistry and Methodology before purchasing it in order to gauge whether or not it would be worth my time, and all praised Regulation of G Protein Coupled Receptor Function and Expression: Receptor Biochemistry and Methodology:

0 of 0 people found the following review helpful. Wonderful summary edition! By Kevin Gillette This is a marvelous compendium of articles about the recent Nobel-acknowledged GPCRs and the degree to which they contribute to our overall sensory input (practically all!) and other transcellular activities. Definitely a must-have if you are interested in seeing what Kobilka, Lefkowitz, and many others in this area have been laboring over for the last couple of decades!

Recent advances in molecular and cell biology enabling the cloning, expression, and mutagenesis of signal transduction proteins has prompted an explosion of knowledge in the field of receptor regulation, facilitating the discovery of new classes of regulatory proteins, and providing a basis and means for manipulating receptor function through multiple intracellular targets. This volume covers methods used to examine how the function(s) of receptors are regulated. Understanding how to regulate the function and expression of these receptors is critical in determining how to modify receptors and to translocating receptors away from the cell surface and its recycling. Individual chapters focus on specific techniques used to characterize receptors (epitope tagging, measurement and analysis of receptor phosphorylation, analysis of the kinetics of receptor desensitization, and assessment of receptor/G protein coupling); the role of regulatory proteins (receptor kinases and phosphatases, arrestins) in modulating receptor function; and the methods used to measure receptor trafficking (ligand binding, immunofluorescence) and expression (transcriptional and translational regulation). * Covers a broad range of important concepts and methodologies which are current in the study of G protein-coupled receptors (GPCRs) * G-protein coupled receptors make up over 40% of the current pharmacological targets * Provides detailed protocols for executing various strategies and offers informed judgments as to what approaches are and aren't useful * Volume Editor, Jeffrey Benovic, is a dominant world leader in the study of receptor regulation of GPCR kinases and is highly respected in the field

From the Back Cover G protein-coupled receptors (GPCRs) constitute the largest single class of receptors and are responsible for mediating much of intracellular mammalian signaling. Indeed, over 40 percent of the pharmacological targets being evaluated by drug companies are related to G protein-coupled receptors. Understanding how GPCRs are regulated is critical in determining ways to control their function and expression. This volume covers basic concepts while providing comprehensive treatment of methods used to examine how the functions of GPCRs are regulated. Chapters in this volume, edited by Dr. Jeffrey Benovic, a world-renowned expert in the study of GPCR regulation, describe: * Current techniques used to define the molecular mechanisms involved in receptor regulation * Specific techniques employed to characterize receptors * The role of regulatory proteins in modulating receptor function * Methods used to measure receptor trafficking and expression Covering a broad range of fundamental concepts and methodologies which are current in the study of GPCRs, Regulation of G Protein-Coupled Receptor Function and Expression is a vital reference for receptor biochemists, pharmacologists, neuroscientists, molecular biologists, cell biologists, and physiologists. Also in this series: Receptor Localization: Laboratory Methods and Procedures edited by Marjorie A. Ariano Identification and Expression of G Protein-Coupled Receptors edited by Kevin R. Lynch Structure-Function Analysis of G Protein-Coupled Receptors edited by Jrgen Wess