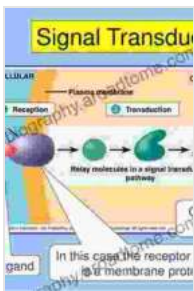


An Introduction to the Molecular Mechanisms of Signal Transduction

Signal transduction is the process by which cells communicate with each other. It is a complex and dynamic process that involves a number of different molecules and pathways. This book provides a comprehensive overview of the molecular mechanisms of signal transduction.



Cellular Signal Processing: An Introduction to the Molecular Mechanisms of Signal Transduction

★★★★☆ 4.6 out of 5

Language : English

File size : 61997 KB

X-Ray for textbooks : Enabled

Print length : 656 pages



Chapter 1: Overview of Signal Transduction

This chapter provides an overview of the basic principles of signal transduction. It discusses the different types of 信号, the different types of receptors, and the different types of signal transduction pathways.

Chapter 2: G Protein-Coupled Receptors

This chapter focuses on G protein-coupled receptors (GPCRs). GPCRs are the most common type of receptor in the human body. They are responsible for a wide range of cellular responses, including vision, smell, taste, and hormone signaling.

Chapter 3: Receptor Tyrosine Kinases

This chapter focuses on receptor tyrosine kinases (RTKs). RTKs are a type of receptor that is activated by the binding of a growth factor. RTKs are responsible for a number of cellular processes, including cell growth, differentiation, and survival.

Chapter 4: Non-Receptor Tyrosine Kinases

This chapter focuses on non-receptor tyrosine kinases (NRKs). NRKs are a type of tyrosine kinase that is not activated by the binding of a growth factor. NRKs are involved in a number of cellular processes, including cell cycle regulation and apoptosis.

Chapter 5: Serine/Threonine Kinases

This chapter focuses on serine/threonine kinases (STKs). STKs are a type of kinase that phosphorylates serine or threonine residues on their target proteins. STKs are involved in a number of cellular processes, including cell cycle regulation, transcription, and translation.

Chapter 6: Lipid Kinases

This chapter focuses on lipid kinases. Lipid kinases are a type of kinase that phosphorylates lipids. Lipid kinases are involved in a number of cellular processes, including cell signaling, membrane trafficking, and cell growth.

Chapter 7: Small GTPases

This chapter focuses on small GTPases. Small GTPases are a type of GTPase that is involved in a number of cellular processes, including cell cycle regulation, cytoskeletal organization, and membrane trafficking.

Chapter 8: Signal Transduction Pathways

This chapter provides an overview of the different signal transduction pathways. It discusses the different types of pathways, the different components of pathways, and the different ways that pathways can be regulated.

Chapter 9: Signal Transduction in Disease

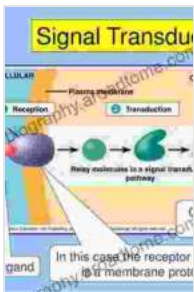
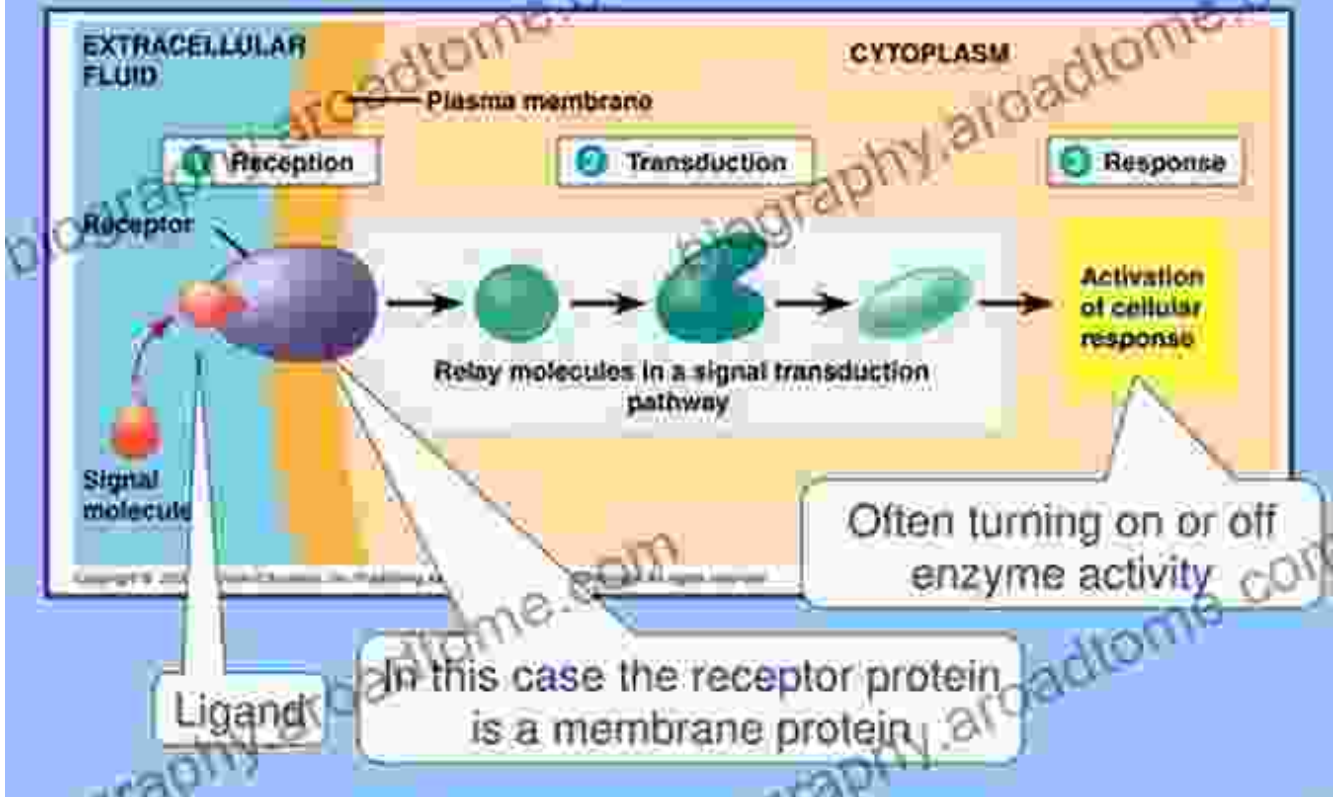
This chapter discusses the role of signal transduction in disease. It discusses how mutations in signal transduction proteins can lead to cancer, developmental disorders, and other diseases.

Chapter 10: Future Directions in Signal Transduction Research

This chapter discusses the future directions in signal transduction research. It discusses the different areas of research that are being pursued, and the potential implications of this research for our understanding of cell biology and disease.

This book provides a comprehensive overview of the molecular mechanisms of signal transduction. It is an essential resource for students, researchers, and clinicians who are interested in this field.

Signal Transduction



Cellular Signal Processing: An Introduction to the Molecular Mechanisms of Signal Transduction

★★★★☆ 4.6 out of 5

Language : English

File size : 61997 KB

X-Ray for textbooks : Enabled

Print length : 656 pages

FREE

DOWNLOAD E-BOOK





Unveiling the Silent Pandemic: Bacterial Infections and their Devastating Toll on Humanity

Bacterial infections represent a formidable threat to global health, silently plaguing humanity for centuries. These microscopic organisms, lurking within our...



Finally, Outcome Measurement Strategies Anyone Can Understand: Unlock the Power of Data to Drive Success

In today's competitive landscape, organizations of all sizes are under increasing pressure to demonstrate their impact. Whether you're a...