

<<信号转导手册>>

图书基本信息

书名：<<信号转导手册>>

13位ISBN编号：9787030312655

10位ISBN编号：7030312651

出版时间：2011-6

出版时间：科学出版社

作者：布拉德肖

页数：384

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<信号转导手册>>

内容概要

Ralph

A.Bradshaw编著的《信号转导手册(1细胞内外信号转导机制原著第2版导读版)(精)》包含350个章节，全面涵盖细胞信号转导领域。

内容包括：细胞内外信号转导机制，蛋白质磷酸化和去磷酸化，钙离子信号转导、脂质介导的第二信使，蛋白质互作、环化核苷酸，G蛋白、发育生物学中的信号转导，转录与翻译：细胞核与细胞质事件，细胞内功能区隔信号转导、胞间和细胞基质的相互作用、疾病病理学。

《信号转导手册(1细胞内外信号转导机制原著第2版导读版)(精)》是生物学实验室不可或缺的工具用书，适用于生物化学与分子生物学、细胞生物学等相关专业的高年级本科生、研究生，也可作为教师的教学和科研参考书，亦可供生物医学、药理学、免疫学及相关领域的研究人员参考。

<<信号转导手册>>

书籍目录

英文目录

撰稿人名单

第二版前言

第一版前言

导读版第 卷 细胞内外信号转导机制

1. 细胞信号转导：昨天、今天和明天

第一部分 起始：胞外及质膜事件

A 分子识别

2. 分子识别的结构和能量基础

3. 蛋白与蛋白相互作用的自由能概貌

4. 分子社会学

5. 抗原-抗体识别及其构象变化

6. 抗原-抗体界面处的结合热力学

7. 免疫球蛋白-Fc受体相互作用

8. 免疫球蛋白超折叠及其在分子识别中的多种用途

9. T细胞受体 / pMHC复合体

10. 细胞表面黏附受体的机制特征

11. 免疫突触

12. NK受体

13. 碳水化合物的识别与信号转导

14. 鼻病毒与其受体的相互作用

15. 卜型人免疫缺陷病毒与其受体的相互作用

16. 流感病毒神经氨酸酶的抑制剂

17. 涉及血液纤维蛋白原及纤维蛋白的信号事件的结构基础

18. 整合素信号的结构基础

19. G蛋白异源三聚体及其复合物的结构

20. G蛋白偶联受体的结构

21. Toll样受体的结构与信号

22. 多种多样的淋巴细胞受体

B 多通路受体

23. G蛋白偶联受体的结构与功能：从最近发现的晶体结构得到的启示

24. 趋化因子及其受体的结构与功能

25. G蛋白偶联受体的结构及其被可扩散激素所激活的过程(参照 2型肾上腺素受体模型)

26. 蛋白酶激活的受体

27. 由激动剂导致的G蛋白偶联受体的脱敏及细胞内吞化作用

28. 由G蛋白偶联受体形成的二聚化复合体的功能

29. 细菌中的趋化性受体：跨膜信号，敏感性，匹配及受体聚集

30. 离子通道结构概论

31. STIM和Orai介导的钙库依赖性钙信号及CRAC离子通道激活的分子机制

32. 离子渗入性：离子选择性与进入阻断的机制

33. 烟碱乙酰胆碱受体

34. 与核苷酸环化酶直接结合而被调节的离子通道

C 对受体的横向比较研究

35. 细胞因子受体概述

36. 生长激素与泌乳激素家族及其受体：受体激活和调节的结构基础

<<信号转导手册>>

37. 以促红细胞生成素受体为例的细胞因子信号

38. 纤维原细胞生长因子(FGF)信号复合体

39. 干扰素及其受体的结构

导读版第2卷 蛋白质磷酸化和去磷酸化

导读版第3卷 钙离子信号转导、脂质介导的第二信使

导读版第4卷 蛋白质互作、环化核苷酸

导读版第5卷 G蛋白、发育生物学中的信号转导

导读版第6卷 转录与翻译：细胞核与细胞质事件

导读版第7卷 细胞内功能区隔信号转导、胞间和细胞基质间的相互作用、疾病病理学索引

章节摘录

Mechanistic Features of Cell-Surface Adhesion Receptors Living cells constantly interact with their environment. As a consequence, a number of sensory systems have evolved for the collection, processing, and integration of a remarkable range of environmental stimuli arising from cell-cell and cell-substrate interactions. For instance, developmental and morphological processes in higher eukaryotes rely on the orchestrated migration of cells in response to specific physical and chemical cues; T cell activation relies on the localization and compartmentalization of cell-adhesion and signaling molecules; and adherent cells must respond to a variety of intracellular and extracellular mechanical forces. All of these processes rely on the engagement of specific cell-surface receptors with the appropriate extracellular ligand to report on the immediate physical environment by transducing extracellular signals across the plasma membrane. This review examines the diversity of mechanisms thought to be involved in adhesion and signaling and highlights some of the shared principles that must be considered for all signaling pathways utilizing cell-surface receptors.

MECHANOSENSORY MECHANISMS The ability to detect and respond to alterations in applied mechanical force is required for a number of cellular and developmental functions. This is particularly critical for adherent cells that directly contact the extracellular matrix (ECM) and are subject to considerable physical deformation. For example, shear forces associated with blood flow are major determinants of arterial tone and vascular reorganization. At the cellular level, morphology and orientation are optimized to minimize mechanical stress and damage associated with variations in flow-related forces (see, for example, (1-31)). Similarly, fibroblasts must be highly responsive to the mechanical forces associated with alterations in the ECM (reviewed in 141). Considerable evidence points to focal adhesions, the sites of cell-substrate contact, as the sensors of mechanical force. Central to focal adhesion assembly and function are the integrins, a family of heterodimeric transmembrane glycoproteins that provide essential adhesive functions for cell migration and the establishment and maintenance of normal tissue architecture. At least 18 α and 8 β chains allow for the formation of multiple integrin heterodimers that are able to display a spectrum of specificities for cell-surface adhesion molecules and for a range of ECM components, including laminin, collagen, and fibronectin. The integrin cytoplasmic domains bind a variety of scaffolding and actin regulatory proteins, which in turn recruit a large number of adaptor and signaling molecules. These physical links couple the integrins to the downstream activation of numerous signaling molecules, including MAP kinase, focal adhesion kinase, Src, and P13-kinase (see, for example, (4, 51)). Furthermore, integrin affinity is modulated by the activation state of the particular cell in question.

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>