

Dietary Modulation of Cell Signaling Pathways

A consequence of rapid progress in the science of nutrigenomics and nutrigenetics is the substantial accumulation of data covering nutritional modulation of gene expression at the cellular and subcellular levels. Current research is increasingly focused on the role of nutrition and diet in modifying oxidative damage in the progression of disease. **Dietary Modulation of Cell Signaling Pathways** reviews some of these findings, focusing on nutrient-gene interactions with particular emphasis on the intracellular signaling network.

The book addresses the dietary modulation of particular gene expression systems and highlights the underlying molecular and cellular mechanisms that involve upstream signaling molecules, such as kinases and transcription factors in the context of their therapeutic potential. It describes nutrients' actions on the activation of an antioxidant and inflammatory transcription factor and the induction of their target gene expression.

Features

- Provides a comprehensive introduction to dietary modulation of cell signaling
- Discusses chemopreventive agents, food phytochemicals, flavonoids, and polyphenols
- Explores the connection between dietary factors, gene expression, and the epigenome
- Examines the role of nutrition in protecting against many degenerative and chronic diseases

Comprehensively covering dietary modulation of cell signaling, leading experts provide information on state-of-the-art research in their own specialty. For those working in the fields of dietary components, molecular mechanisms, and health benefits, this book presents a useful tool for mechanistic understanding of the action of dietary components.



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