
BOOK REVIEW

Signal Transduction Protocols

(R. C. Dickson and M. D. Mendenhall (eds.), in *Methods in Molecular Biology*, Vol. 284, J. M. Walker (Series Editor), Humana Press, Totowa-New Jersey, 2004, 327 p., \$99.50)

This book consists of 21 chapters written by distinguished experts from many countries. Each chapter describes certain methods employed for characterization and studies of molecules involved in the functioning of various signaling systems in the cell. Unfortunately, the book lacks an introductory chapter, which would highlight the current state of the problems of signal transduction in the cell.

The first five chapters deal with the methods of immunoprecipitation of proteins, inhibitors of signal transduction, two-dimensional electrophoresis for identification of signal molecules, screening of cell transcription factors, and determination of half-life time of protein molecules involved in signal transduction.

The chapters 6-10 consider methods for protein kinase activity assay, use of combination of liquid chromatography, multimer electrospray mass spectrometry,

and also methods of chromatin immunoprecipitation for evaluation of DNA-protein interactions.

The chapters 11-16 contain protocols for non-radioactive assays of small G-protein molecules, identification of nuclear and cytoplasmic glycosylation, techniques for protein methylation, and assays of the following enzymes: lipid phosphate phosphatase, phosphoinositol phosphatase, and phospholipase A₂.

Chapters 17-21 describe methods of determination of cell phosphoinositides, time course of cAMP content, protein-protein interactions, and cytochrome *c* translocation during apoptosis. These methods employ fluorescence and bioluminescence and also various fluorescent markers.

Protocols described in each chapter give all details required for easy reproduction of these methods and the important bibliography. This book will be very useful for biochemists, molecular biologists, and cytologists working in the field of signal transduction.

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