Green Fluorescent Protein: Properties, Applications and Protocols (Methods of Biochemical Analysis)

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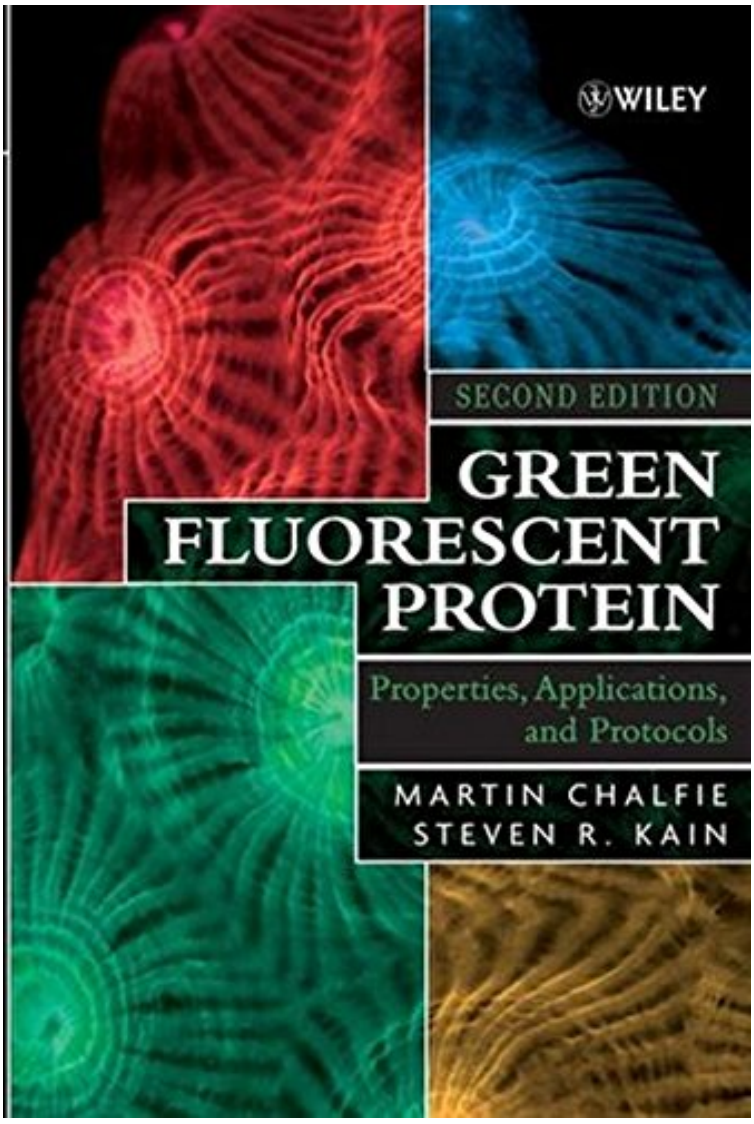

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From Wiley-Liss : Green Fluorescent Protein: Properties, Applications and Protocols (Methods of Biochemical Analysis) before purchasing it in order to gage whether or not it would be worth my time, and all praised Green Fluorescent Protein: Properties, Applications and Protocols (Methods of Biochemical Analysis):

Since the discovery of the gene for green fluorescent protein (GFP), derived from jellyfish, this protein that emits a green glow has initiated a revolution in molecular biosciences. With this tool, it is now possible to visualize nearly any protein of interest in any cell or tissue of any species. Since the publication of the first edition, there have been tremendously significant technological advances, including development of new mutant variants. Proteins are now available in yellow and blue, and Novel Fluorescent Proteins (NFPs) have expanded their utility in developing biosensors, biological markers, and other biological applications. This updated, expanded new edition places emphasis on the rise of NFPs, including new chapters on NFP properties with detailed protocols, applications of GFPs and NFPs in industry research, and biosensors. This book provides a solid theoretical framework, along with detailed, practical guidance on use of GFPs and NFPs with discussion of potential pitfalls. The expert contributors provide real examples in showing how to tailor GFP/NFP to specific systems, maximize expression, and enhance detection.

"...a magnificent text that will immensely benefit students and scientists from many biomedical areas." (Annals of Biomedical Engineering, August 2006) "Any researcher, graduate student or educator with an interest in using GFP should read this book. It will become the 'bible for GFP' users." (The Quarterly of Biology, June 2006)From the PublisherGreen fluorescent protein (GFP) has become a significant and widely used reporter system for in vivo studies that cut across the boundaries of biochemistry, physiology, and cell, developmental and molecular biology. This book provides the first collection of studies examining the versatile uses and applications of this reporter system.From the Back CoverThe latest edition of the definitive text in the field of fluorescent proteins Green fluorescent protein (GFP), a biological marker cloned from jellyfish, has emerged from virtual obscurity to the forefront of biomolecular research in just a few years. GFP and related fluorescent proteins (FPs) have been intensely studiedthe subjects of hundreds of in vivo projects worldwide. These studies have resulted in new applications and published articles, emerging at a breathtaking rate. The success of FPs and their many uses promise to make them some of the most powerful tools in biotechnology, pharmaceutical science, and molecular and cellular biology. Written by pioneers in the field, this text tackles both theory and practice, offering numerous case studies, examples, illustrations, and troubleshooting tips. It examines how FPs are tailored for specific systems and used to maximize expression, and how variants are generated with altered properties. The text also explores new ways to use FPs and methods for enhancing detection in a variety of organisms and cell types. This updated and expanded edition places emphasis on the rise of FPs and their applications in industry and biosensor research. Green Fluorescent Protein: Properties, Applications, and Protocols, Second Edition provides: New chapters on FPs, biosensors, and advances in the use of FPs in the biotechnology and pharmaceutical industries Detailed information about protocols using FPs Examples from recent notable studies Background on the biochemical and physical properties, three-dimensional structure, and molecular biology and mutation of FPs The application of FPs across organisms Green Fluorescent Protein: Properties, Applications, and Protocols, Second Edition is essential reading for researchers and graduate students in molecular and cellular biology, physiology, biochemistry, developmental biology, neuroscience, ecology, in vivo biology, and plant molecular biology.