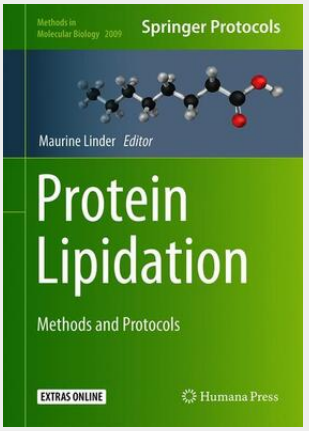
Linder

Protein Lipidation

Methods and Protocols



This volume explores techniques used to detect lipids attached to proteins, to analyze the function of lipid modifications, and to characterize the enzymes that add and remove lipids from proteins. The book is organized into seven parts: Part One describes chemically-based strategies to identify substrates for protein lipidation that can be applied to individual proteins or globally using proteomics. Part Two focuses on the enzymes that remove fatty acids from proteins and provides methods to monitor protein biogenesis and palmitate turnover. Part Three addresses biochemical and cellular characterization of DHHC S-acyltransferases, a family of enzymes with 23 members encoded by the human genome. Part Four presents the SwissPalm 2 database and tips on how to use it effectively. Part Five focuses on fatty acylation that occurs in the lumen of the secretory pathway. Parts Six and Seven conclude the book with methods to produce and assay lipid-modified and integral membrane proteins. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Cutting-edge and authoritative, Protein Lipidation: Methods and Protocols is a valuable resource for experts in the field and for investigators who encounter protein lipidation through their research on a particular cellular process or favorite protein.

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Kundenservice Fachmedien Otto Schmidt
Neumannstraße 10, 40235 Düsseldorf | kundenservice@fachmedien.de | 0800 000-1637 (Inland)