

# Preface

Src-family protein tyrosine kinases (PTKs) are involved in cellular pathways of growth and differentiation in response to action of growth factors and other ligands that activate cell surface receptors. Regulation of these pathways is extremely important for cell life. Domain architecture of PTKs comprises catalytic and regulatory domains (SH domains) and plays an important role in its function. Structure and activation/deactivation mechanisms of PTKs were extensively studied. SH3 and SH2 domains are mainly involved in protein–protein interactions. Recognition of specific sequence motifs by these modules, polyproline sequences by SH3 and phosphotyrosines by SH2 in particular, contributes significantly to regulation of the kinase action.

SH Domains

Structure, Mechanisms and Applications

Kurochkina, N. (Ed.)

2015, VIII, 253 p. 52 illus., 30 illus. in color., Hardcover

ISBN: 978-3-319-20097-2