

CONTENTS

1.	Study of Protein phosphorylation in intact cells	1
2.	Analysis of signal transduction pathways using protein kinase inhibitors and activators	33
3.	Analysis of signal transduction pathways using protein-serine/threonine phosphatase inhibitors	53
4.	Analysis of signal transduction pathways using molecular biological manipulations	69
5.	Phosphopeptide mapping and phosphoamino acid analysis on cellulose thin-layer plates	97
6.	Phosphorylation site analysis by mass spectrometry	127
7.	Assay and purification of protein (serine/threonine) phosphatases	153
8.	Identification of substrates for protein tyrosine phosphatases	183
9.	Assay and purification of protein-serine/threonine kinases	201
10.	Assay of protein kinases and phosphatases using specific peptide substrates	221
11.	Cloning and expression of cDNAs encoding protein kinase subunits	255
12.	Interaction cloning of protein kinase partners	281
13.	Identifying protein kinase substrates by expression screening with solid-phase phosphorylation	291
14.	Analysis of protein kinase interactions using the two-hybrid method	315
15.	Analysis of protein kinase interactions using biomolecular interaction analysis	335
16.	Analysis of protein kinase specificity using oriented peptide libraries	373
17.	Crystallization of protein kinases and phosphatases	387
	List of suppliers	423
	INDEX	427