

Contents

<i>Preface</i>	<i>v</i>
<i>Contributors</i>	<i>ix</i>
1 Strain Construction and Screening Methods for a Yeast Histone H3/H4 Mutant Library	1
<i>Junbiao Dai and Jef D. Boeke</i>	
2 Measuring Dynamic Changes in Histone Modifications and Nucleosome Density during Activated Transcription in Budding Yeast	15
<i>Chhabi K. Govind, Daniel Ginsburg, and Alan G. Hinnebusch</i>	
3 Monitoring the Effects of Chromatin Remodelers on Long-Range Interactions In Vivo	29
<i>Christine M. Kiefer and Ann Dean</i>	
4 Measuring Nucleosome Occupancy In Vivo by Micrococcal Nuclease	47
<i>Gene O. Bryant</i>	
5 Analysis of Nucleosome Positioning Using a Nucleosome-Scanning Assay	63
<i>Juan Jose Infante, G. Lynn Law, and Elton T. Young</i>	
6 Assaying Chromatin Structure and Remodeling by Restriction Enzyme Accessibility	89
<i>Kevin W. Trotter and Trevor K. Archer</i>	
7 Generation of DNA Circles in Yeast by Inducible Site-Specific Recombination	103
<i>Marc R. Gartenberg</i>	
8 An Efficient Purification System for Native Minichromosome from <i>Saccharomyces cerevisiae</i>	115
<i>Ashwin Unnikrishnan, Bungo Akiyoshi, Sue Biggins, and Toshio Tsukiyama</i>	
9 Simultaneous Single-Molecule Detection of Endogenous C-5 DNA Methylation and Chromatin Accessibility Using MAPit	125
<i>Russell P. Darst, Carolina E. Pardo, Santhi Pondugula, Vamsi K. Gangaraju, Nancy H. Nabils, Blaine Bartholomew, and Michael P. Kladde</i>	
10 Analysis of Stable and Transient Protein–Protein Interactions	143
<i>Stephanie Byrum, Sherri K. Smart, Signe Larson, and Alan J. Tackett</i>	
11 Monitoring Dynamic Binding of Chromatin Proteins In Vivo by Fluorescence Recovery After Photobleaching	153
<i>Florian Mueller, Tatiana S. Karpova, Davide Mazza, and James G. McNally</i>	
12 Monitoring Dynamic Binding of Chromatin Proteins In Vivo by Fluorescence Correlation Spectroscopy and Temporal Image Correlation Spectroscopy	177
<i>Davide Mazza, Timothy J. Stasevich, Tatiana S. Karpova, and James G. McNally</i>	

13	Analysis of Chromatin Structure in Plant Cells	201
	<i>Mala Singh, Amol Ranjan, Krishan Mohan Rai, Sunil Kumar Singh, Verandra Kumar, Ila Trivedi, Niraj Lodhi, and Samir V. Sawant</i>	
14	Analysis of Histones and Histone Variants in Plants.	225
	<i>Ila Trivedi, Krishan Mohan Rai, Sunil Kumar Singh, Verandra Kumar, Mala Singh, Amol Ranjan, Niraj Lodhi, and Samir V. Sawant</i>	
15	Reconstitution of Modified Chromatin Templates for In Vitro Functional Assays	237
	<i>Miyong Yun, Chun Ruan, Jae-Wan Huh, and Bing Li</i>	
16	A Defined In Vitro System to Study ATP-Dependent Remodeling of Short Chromatin Fibers	255
	<i>Verena K. Maier and Peter B. Becker</i>	
17	In Vitro Reconstitution of In Vivo-Like Nucleosome Positioning on Yeast DNA	271
	<i>Christian J. Wippo and Philipp Korber</i>	
18	Activator-Dependent Acetylation of Chromatin Model Systems.	289
	<i>Heather J. Szerlong and Jeffrey C. Hansen</i>	
19	Mapping Assembly Favored and Remodeled Nucleosome Positions on Polynucleosomal Templates	311
	<i>Hillel I. Sims, Chuong D. Pham, and Gavin R. Schnitzler</i>	
20	Analysis of Changes in Nucleosome Conformation Using Fluorescence Resonance Energy Transfer	337
	<i>Tina Shahian and Geeta J. Narlikar</i>	
21	Preparation of Nucleosomes Containing a Specific H2A–H2A Cross-Link Forming a DNA-Constraining Loop Structure	351
	<i>Ning Liu and Jeffrey J. Hayes</i>	
22	Sulphydryl-Reactive Site-Directed Cross-Linking as a Method for Probing the Tetrameric Structure of Histones H3 and H4	373
	<i>Andrew Bowman and Tom Owen-Hughes</i>	
23	Genomic Approaches for Determining Nucleosome Occupancy in Yeast	389
	<i>Kyle Tsui, Tanja Durbic, Marinella Gebbia, and Corey Nislow</i>	
24	Genome-Wide Approaches to Determining Nucleosome Occupancy in Metazoans Using MNase-Seq	413
	<i>Kairong Cui and Keji Zhao</i>	
25	Salt Fractionation of Nucleosomes for Genome-Wide Profiling	421
	<i>Sheila S. Teves and Steven Henikoff</i>	
26	Quantitative Analysis of Genome-Wide Chromatin Remodeling	433
	<i>Songjoon Baek, Myong-Hee Sung, and Gordon L. Hager</i>	
27	Computational Analysis of Nucleosome Positioning	443
	<i>Itay Tirosb</i>	
	<i>Index</i>	451



<http://www.springer.com/978-1-61779-476-6>

Chromatin Remodeling
Methods and Protocols

Morse, R.H. (Ed.)

2012, XII, 456 p., Hardcover

ISBN: 978-1-61779-476-6

A product of Humana Press