

Contents

Preface	v
Contributors	xi
1 Isolation of Target Gene Promoter/Enhancer Sequences by Whole Genome PCR Method Dennis K. Watson, Richard Kitching, Calvin Vary, Ismail Kola, and Arun Seth	1
2 In Vivo Footprinting Using UV Light and Ligation-Mediated PCR Gerd P. Pfeifer and Stella Tommasi	13
3 Identification of DNaseI Hypersensitive Sites Within Nuclei Peter N. Cockerill	29
4 Analysis of In Vivo Methylation Hans-Henrik M. Dahl and Wendy M. Hutchison	47
5 Detection of Transcription Factor Partners with a Yeast One Hybrid Screen Michael Sieweke	59
6 Inverse PCR (IPCR) for Obtaining Promoter Sequence Tony Triglia	79
7 PCR-Directed Linker Scanning Mutagenesis Kurt Gustin and Robert D. Burk	85
8 Transfection Technologies Elaine T. Schenborn	91
9 The Use of Particle-Mediated Gene Transfer for the Study of Promoter Activity in Somatic Tissues Charles M. Nicolet and Ning-Sun Yang	103
10 Optimizing Electroporation Conditions for the Transformation of Mammalian Cells William C. Heiser	117
11 Calcium Phosphate Transfection of Mammalian Cultured Cells Elaine T. Schenborn and Virginia Goiffon	135

12	DEAE-Dextran Transfection of Mammalian Cultured Cells Elaine T. Schenborn and Virginia Goiffon	147
13	Liposome-Mediated Transfection of Mammalian Cells Elaine T. Schenborn and Jennifer Oler	155
14	Assays for Transcriptional Activity Based on the Luciferase Reporter Gene S. Roy Himes and M. Frances Shannon	165
15	Transient Transfection of Schneider Cells in the Study of Transcription Factors Guntram Suske	175
16	Triplex-Forming Oligonucleotides and Their Use in the Analysis of Gene Transcription Marina Kochetkova and M. Frances Shannon	189
17	Expression and Purification of Histidine-Tagged Transcription Factors Donna R. Cohen	203
18	Generation of Transcription Factors in Rabbit Reticulocyte Lysate Depleted of Endogenous DNA-Binding Protein Ulrich Kruse, Thorsten T. Ebel, and Albrecht E. Sippel	227
19	Electrophoretic Mobility Shift Assays Peter L. Molloy	235
20	In Vitro Promoter Analysis Using Nuclear Extracts and G-Free Cassette Vectors Martin J. Tymms	247
21	In Vitro Transcription Using Competitor Oligonucleotides to Deplete Specific Transcription Factors Fujiko Watt	257
22	Computer Software of Eukaryotic Promoter Analysis Dan S. Prestridge	265
	Index	297



<http://www.springer.com/978-0-89603-573-7>

Transcription Factor Protocols

Tymms, M.J. (Ed.)

2000, X, 306 p., Hardcover

ISBN: 978-0-89603-573-7

A product of Humana Press