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Nota di contenuto	Analysing Gene Expression A Handbook of Methods Possibilities and Pitfalls; Foreword; Preface; Contents; List of Contributors; Volume 1; 1 Basic concepts of gene expression; 1.1 Introduction; 1.2 Basics of transcription and translation in the cell; 1.2.1 Introduction; 1.2.2 Transcription; 1.2.3 Translation; 1.2.4 Summary; 1.3 Regulation of transcription; 1.3.1 Introduction; 1.3.2 mRNA expression profiles - the transcriptome; 1.3.3 Protein expression profiles - the proteome; 1.3.4 Interaction between genes and proteins - the interactome; 1.3.5 The transcription machinery and core promoters 1.3.6 Regulatory promoters 1.3.7 Enhancers; 1.3.8 Locus control regions; 1.3.9 Matrix attachment regions; 1.3.10 Insulators; 1.3.11 RIDGEs - Regions of increased gene expression; 1.3.12 Enhanceosomes; 1.3.13 Chromatin; 1.3.14 Silencer elements; 1.3.15 Transcription factors, repressors and co-repressors; 1.3.16 Epigenetics; 1.3.17 Summary and conclusions; 1.4 Post-transcriptional regulation; 1.4.1 Introduction; 1.4.2 Regulation of RNA stability and degradation; 1.4.3 Regulation of transcription elongation; 1.4.3.1

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1.4.3.3 Regulation of transcription elongation in eukaryotes 1.4.3.4 Conclusions; 1.4.4 Differential/alternative pre-mRNA splicing; 1.4.5 Trans-RNA splicing; 1.4.6 Regulation of mRNA transport; 1.4.7 Directed intracellular mRNA localisation; 1.4.8 Regulation of mRNA polyadenylation; 1.4.9 Antisense RNA; 1.4.10 RNA editing; 1.4.11 Summary and conclusions; 1.5 Post-translational modification of proteins; 1.5.1 Introduction; 1.5.2 Proteolytic cleavage of proteins; 1.5.3 Acylation; 1.5.4 Prenylation; 1.5.5 Methylation; 1.5.6 Sulphation; 1.5.7 Phosphorylation; 1.5.8 Ubiquitination  
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2.2.3 Surface affinity chromatography

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#### Sommario/riassunto

This book combines the experience of 225 experts on 900 pages. Scientists worldwide are currently overwhelmed by the ever-increasing number and diversity of genome projects. This handbook is your guide through the jungle of new methods and techniques available to analyse gene expression - the first to provide such a broad view of the measurement of mRNA and protein expression in vitro, in situ and even in vivo. Despite this broad approach, detail is sufficient for you to grasp the principles behind each method. In each case, the authors weigh up the advantages and disadvantages, paying parti

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