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Nota di contenuto	Production of Recombinant Proteins; Preface; Foreword; Contents; List of Contributors; 1 Key and Criteria to the Selection of an Expression Platform; 2 Escherichia coli; 2.1 Introduction; 2.2 Strains, Genome, and Cultivation; 2.3 Expression Vectors; 2.3.1 Replication of pMB1-derived Vectors; 2.3.2 Plasmid Partitioning; 2.3.3 Genome Engineering; 2.3.4 E. coli Promoters; 2.4 Regulation of Gene Expression; 2.4.1 Negative Control; 2.4.2 Positive Control; 2.4.2.1 L-Arabinose Operon; 2.4.2.2 L-Rhamnose Operon; 2.5 Transcription and Translation; 2.5.1 Translation Initiation; 2.5.2 Codon Usage 2.5.3 Translation Termination2.5.4 Transcription Termination and mRNA Stability; 2.6 Protein Production; 2.6.1 Inclusion Body Formation; 2.6.1.1 Chaperones as Facilitators of Folding; 2.6.1.2 Fusion Protein Technology; 2.6.2 Methionine Processing; 2.6.3 Secretion into the Periplasm; 2.6.4 Disulfide Bond Formation and Folding; 2.6.5 Twin Arginine Translocation (TAT) of Folded Proteins; 2.6.6 Disulfide Bond Formation in the Cytoplasm; 2.6.7 Cell Surface Display and Secretion across the Outer Membrane; 2.7 Examples of Products and Processes;

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4.6.4.3 Process Development for the Secretory Production of a Human Calcitonin Precursor Fusion Protein by S. carnosus

Sommario/riassunto

While the choices of microbial and eukaryotic expression systems for production of recombinant proteins are many, most researchers in academic and industrial settings do not have ready access to pertinent biological and technical information since it is normally scattered throughout the scientific literature. This book closes the gap by providing information on the general biology of the host organism, a description of the expression platform, a methodological section -- with strains, genetic elements, vectors and special methods, where applicable -- as well as examples of proteins produced wi