1. Record Nr. UNINA9910457970603321

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Titolo	Biotechnology [[electronic resource]] : a laboratory course / / Jeffrey M. Becker, Guy A. Caldwell, Eve Ann Zachgo
Pubbl/distr/stampa	San Diego, : Academic Press, c1996
ISBN	1-281-18650-3 9786611186500 0-08-052819-8
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (283 p.)
Altri autori (Persone)	CaldwellGuy A ZachgoEve Ann
Disciplina	660.6 660/.6/078 20
Soggetti	Biochemical engineering Biotechnology Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Biotechnology: A Laboratory Course; Copyright Page; Contents; Preface to the Second Edition; Preface to the First Edition; Acknowledgments; Suggested Schedule for Exercises; Introductory Notes: Record Keeping and Safety Rules; Format of Student Laboratory Records; The Ten Commandments of Record Keeping; Safety Rules in the Laboratory; Exercise 1. Aseptic Technique and Establishing Pure Cultures: The Streak Plate and Culture Transfer; Exercise 2. Preparation of Culture Media; Exercise 3. The Growth Curve; Exercise 4. Isolation of Plasmid DNA from Escherichia coli: The Mini-Prep Exercise 5. Purification, Concentration, and Quantitation of DNAExercise 6. Large-Scale Isolation of Plasmid DNA by Column Chromatography; Exercise 7. Amplification of a lacZ Gene Fragment by the Polymerase Chain Reaction; Exercise 8. Restriction Digestion and Agarose Gel Electrophoresis; Exercise 9. Southern Transfer; Exercise 10. Preparation, Purification, and Hybridization of Probe; Exercise 11. Transformation of Saccharomyces cerevisiae; Exercise 12. Isolation of Plasmid from Yeast and Escherichia coil Transformation; Exercise 13.

Protein Assays

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Sommario/riassunto

The objectives of this Second Edition of Biotechnology: A Laboratory Course remain unchanged: to create a text that consists of a series of laboratory exercises that integrate molecular biology with protein biochemistry techniques while providing a continuum of experiments. The course begins with basic techniques and culminates in the utilization of previously acquired technical experience and experimental material. Two organisms, Sacchaomyces cerevisiae and Escherichia coli, a single plasmid, and a single enzyme are the experimental material, yet the procedures and