

# Equipment and Books

## Sigma VM20 Vacuum Manifold

The Sigma VM20 Vacuum Manifold is designed to provide increased efficiency and performance when used with many of Sigma's column-based nucleic acid protein purification systems. The manifold is capable of processing 20 samples simultaneously and includes a stepped design for easy access to every column. Dual vacuum connection ports allow for multiple configurations for waste collection. Waste can be collected in the manifold body or, through use of a threaded drain port, diverted to any auxiliary reservoir providing virtually unlimited capacity. For added convenience, the manifold includes chemically resistant Endura-Luer stopcocks that will not crack or break with repeated use.



### Features and Benefits

- High throughput
  - Capable of processing 20 samples simultaneously
- Unlimited capacity
  - The dual port design allows waste to be collected in the manifold body or diverted to any auxiliary reservoir
- Innovative design
  - Stepped design for easy access to every column
- Convenience
  - Endura-Luer stopcocks instead of plugs
- Durable
  - Chemically resistant polypropylene

### Compatibility

The Sigma VM20 Vacuum Manifold can be used with the following Sigma products:

- GenElute™ HP Plasmid Miniprep Kits
- GenElute™ Five-Minute Plasmid Miniprep Kits
- GenElute™ HP Plasmid Midiprep Kit
- GenElute™ HP Plasmid Maxiprep Kit
- HIS-Select® Cartridge
- HIS-Select® High Flow Cartridge (1.2 ml capacity)
- HIS-Select® High Flow Cartridge (6.4 ml capacity)

### Stability

This product is made out of chemically resistant polypropylene. We have created Endura-Luers to be an enhanced stopcock that resists chemical erosion, cracking, and breaking.

## Ordering Information

Cat. No.	Product Description	Quantity
VM20	Sigma VM20 Vacuum Manifold	1 set

# Equipment and Books

## Bioinformatics: A Guide to the Analysis of Genes and Proteins, 3rd ed.

A. Baxevanis, John Wiley & Sons, 2005, 540 pp., hard cover

This new edition features new chapters on genomic databases, predictive methods using RNA sequences, sequence polymorphisms, protein structure prediction, intermolecular interactions, and proteomic approaches for protein identification. Special topic boxes and appendices highlighting experimental strategies and advanced concepts are included with annotated reference lists, comprehensive lists of relevant Web resources, and an extensive glossary of commonly used terms in bioinformatics, genomics, and proteomics.

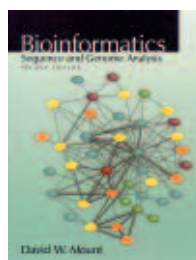


Cat. No.	Product Description	Quantity
<a href="#">Z703591</a>	Bioinformatics: A Guide to the Analysis of Genes and Proteins, 3rd ed.	1 each

## Bioinformatics: Sequence and Genome Analysis, 2nd ed.

D. Mount, Cold Spring Harbor Laboratory Press, 2004, 600 pp., soft cover

As more species' genomes are sequenced, computational analysis of these data has become increasingly important. The second edition of this widely praised textbook provides a comprehensive and critical examination of the computational methods needed for analyzing DNA, RNA, and protein data, as well as genomes. New features include chapter guides and explanatory information panels and glossary terms. New chapters cover statistical analysis of sequence alignments, computer programming for bioinformatics, and data management and mining.

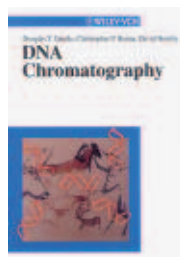


Cat. No.	Product Description	Quantity
<a href="#">Z651931</a>	Bioinformatics: Sequence and Genome Analysis, 2nd ed.	1 each

## DNA Chromatography

D.T. Gjerde, Wiley-VCH, 2002, 244 pp., hard cover

This book describes DNA Chromatography, a powerful and effective tool for the molecular biologist researcher. The technology is useful for a variety of applications including the analysis of mutations (SNPs, insertions, and deletions), the size determination of PCR products, the purification of single- and double-stranded nucleic acids, analysis of enzymatic reaction products, and many others. DNA Chromatography is automated and can replace many of the gel electrophoresis technologies being used, resulting in faster and more accurate analysis.



Cat. No.	Product Description	Quantity
<a href="#">D4816</a>	DNA Chromatography	1 each

## DNA Sequencing: Optimizing the Process and Analysis

J. Kieleczawa, Jones and Bartlett, 2004, 260 pp., soft cover

DNA sequencing techniques have evolved rapidly in recent years, but scientists still encounter challenges in sequencing genomes. This book was written to help troubleshoot these difficulties while also providing a practical guide for those routinely sequencing DNA to refine and enhance their operation. This volume covers important topics in the field, including: biochemical and technological advances induced by the Human Genome Project; proven and newly emerging methods of preparing DNA templates; effects of some widely used laboratory reagents on DNA sequencing; Laboratory Information Management Systems (LIMS); and the future of DNA sequencing.



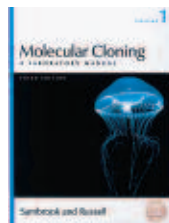
Cat. No.	Product Description	Quantity
<a href="#">Z702870</a>	DNA Sequencing: Optimizing the Process and Analysis	1 each

# Equipment and Books

## Molecular Cloning: A Laboratory Manual, 3rd ed., Vols. 1, 2, and 3

*J.F. Sambrook and D.W. Russell, Cold Spring Harbor Laboratory Press, 2001, 2100 pp., soft cover*

In this new edition, authors Joe Sambrook and David Russell have completely updated the book, revising every protocol and adding a mass of new material, to broaden its scope and maintain its unbeatable value for studies in genetics, molecular cell biology, developmental biology, microbiology, neuroscience, and immunology.

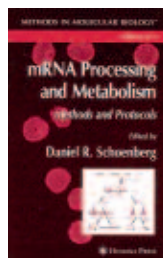


Cat. No.	Product Description	Quantity
<b>M8265</b>	Molecular Cloning: A Laboratory Manual, 3rd ed., Vols. 1, 2, and 3	1 each

## mRNA Processing and Metabolism

*R. Schoenberg, Humana Press, 2004, 288 pp., hard cover*

A collection of reproducible techniques for the study of mRNA processing and metabolism. These techniques range from cotranscriptional processing events that occur while the mRNA is engaged with elongating RNA polymerase II, to *in vivo* and *in vitro* splicing and its biochemical analysis, and alternative splicing. Additional methods cover mRNA export, the recovery and analysis of mRNP complexes, cytoplasmic translation, mRNA degradation *in vivo* and *in vitro*, and the controversial concept of nuclear translation.



Cat. No.	Product Description	Quantity
<b>Z702382</b>	mRNA Processing and Metabolism	1 each

## Nucleic Acid Protocols Handbook

*R. Rapley, Humana Press, 2000, 1072 pp., soft cover*

A comprehensive volume of molecular biology methods ranging from DNA extraction to gene localization *in situ*. The 120 techniques cited list all necessary materials and reagents, step-by-step instruction, pitfalls to avoid, troubleshooting tips, alternate methods, and reasons for certain steps. All key elements contributing significantly to success or failure in the lab. It is a collection of all classic and cutting-edge techniques for isolation, analysis, and manipulation of nucleic acids.



Cat. No.	Product Description	Quantity
<b>N8029</b>	Nucleic Acid Protocols Handbook	1 each

## Principles of Genome Analysis and Genomics, 3rd ed.

*S. Primrose and R. Twyman, Blackwell Publishing, 2003, 288 pp., soft cover*

With the first draft of the human genome project in the public domain and full analyses of model genomes now available, the subject matter of 'Principles of Genome Analysis and Genomics' is even hotter now than when the first two editions were published. In this edition of this very practical guide to the different techniques and theory behind genomes and genome analysis, the authors provide a fresh look at this topic. In the light of recent advancements in the field, the authors have completely revised and rewritten many parts of the new edition with the addition of five new chapters.



Cat. No.	Product Description	Quantity
<b>Z700630</b>	Principles of Genome Analysis and Genomics, 3rd ed.	1 each

# Equipment and Books

## RNA Editing

*B.L. Bass, Oxford University Press, 2002, 210 pp., soft cover*

This book devotes a chapter to each of the major types of this form of RNA processing. Each chapter offers fundamental principles, as well as up-to-date information on recent advances. Numerous examples of RNAs known to be edited are provided throughout and the book highlights the mechanistic diversity found among the various types of RNA editing. RNAs are cleaved, ligated, and deaminated on their way to maturation, and in some cases, their sequence is even altered in the brief moment when RNA polymerase stalls. The chemical reactions that allow RNA editing, and the RNA and proteins that direct the process are all described.



Cat. No.	Product Description	Quantity
<b>R5152</b>	RNA Editing	1 each

## RNA Methodologies: A Laboratory Guide for Isolation and Characterization, 3rd ed.

*R. Farrell, Elsevier, 2005, 688 pp., soft cover*

This laboratory guide represents a growing collection of tried, tested, and optimized laboratory protocols for the isolation and characterization of eukaryotic RNA, with lesser emphasis on the characterization of prokaryotic transcripts. Collectively the chapters work together to embellish the RNA story, each presenting clear take-home lessons, liberally incorporating flow charts, tables and graphs to facilitate learning and assist in the planning and implementation phases of a project. This book includes approximately 30% new material, including chapters on the more recent technologies of RNA interference including: RNAi; Microarrays; Bioinformatics. It also includes new sections on: new and improved RT-PCR techniques; innovative 5' and 3' RACE techniques; subtractive PCR methods; methods for improving cDNA synthesis.



Cat. No.	Product Description	Quantity
<b>Z704490</b>	RNA Methodologies: A Laboratory Guide for Isolation and Characterization, 3rd ed.	1 each

## Short Protocols in Molecular Biology, 5th ed., 2 Volume set

*F.M. Ausubel, John Wiley & Sons, 2002, 1504 pp., soft cover*

The new edition expanded to 2 volumes provides condensed descriptions of more than 700 methods compiled from *Current Protocols in Molecular Biology*. The books are specifically designed to provide quick access to step-by-step instructions for the essential methods used in every major area of molecular biological research. Includes new chapters on chromatin assembly and analysis, nucleic acid arrays, generation and use of combinatorial libraries, discovery and analysis of differentially expressed genes in single cells and cell populations.



Cat. No.	Product Description	Quantity
<b>S8441</b>	Short Protocols in Molecular Biology, 5th ed., 2 Volume set	1 each