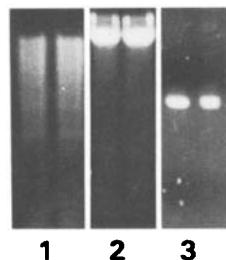


MOLECULAR RESEARCH CENTER, INC. presents
SMART SOLUTIONS

The most reliable and cost-effective reagents for DNA and RNA isolations. Using separation technology based on the recognition of target molecules by a liquid phase, these innovative reagents outperform traditional DNA and RNA isolation methods. No enzymatic treatments! No columns! No prolonged protocols!

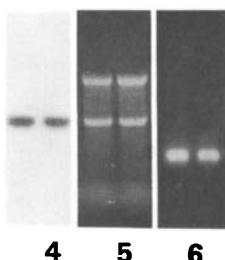
DNAzolTM, a new standard of simplicity and effectiveness in the isolation of high quality genomic DNA, developed by P. Chomczynski.



- Requires only 10 - 30 minutes
- Effective with cells, tissue and liquid samples, including blood.
- No phenol or other toxic agents
- Isolated DNA **②** is ready for Southern blotting, restriction analysis **①**, PCR **③**, molecular cloning and other applications.

TRI REAGENT[®], the most advanced version of the single-step method of RNA isolation.

- Isolates high quality total RNA in less than one hour
- Can be used to simultaneously isolate RNA, DNA and proteins
- Effective with cells, tissue and liquid samples, including blood.
- Isolated RNA **⑤** is ready for Northern blotting **④**, RT-PCR **⑥**, and other applications



For information or to place an order from USA, Canada and countries not listed below call 1-800 462-9868, 513-841-0900 or Fax 513-841-0080.

MRC
MOLECULAR RESEARCH CENTER, INC.
5645 Montgomery Rd. Cincinnati, OH 45212

AUSTRALIA: A.G.P. Technologies Pty Ltd 61-7-3419702 Fax 61-7-841-3422; **FRANCE:** Euromedex 33-88-180722 Fax 33-88-180725; **GERMANY:** BioTech Trade & Service GmbH 49-6227-51308 Fax 49-6227-53694; **INDIA:** Lab Care Products 91-11-6425156 Fax 91-11-6425156; **ISRAEL:** Tal Ron 972-8-472563 Fax 972-8-471156; **ITALY:** Bio-Optica Milano SpA 39-2-2640274 Fax 39-2-2153000; **KOREA:** Choong Il Chemical, Inc 822-2946411 Fax 822-2936556; **MALAYSIA:** Technicvest Sdn. Bhd 603-6320998 Fax 603-632-0994; **SWITZERLAND:** Lucerna Chem Ag 41-41-369636 Fax 41-41-369656; **TAIWAN:** Pan Asia Biomedical Technology, Inc. 886-2-7418169 Fax 886-2-7764372; **UNITED KINGDOM:** Molecular Research Centre Oxford 44-1993-706736 Fax 44-1865-351511.

Reader Service No. 143

Editorial office: Cold Spring Harbor Laboratory Press, 1 Bungtown Road, Cold Spring Harbor, New York 11724-2203. Phone 516-367-8492; FAX 516-367-8334.

GENOME RESEARCH (ISSN 1054-9803) is published monthly for \$245 (U.S. institutional; \$290 R.O.W.), \$70 (individual making personal payment; \$115 R.O.W., includes airlift) by Cold Spring Harbor Laboratory Press, 1 Bungtown Road, Cold Spring Harbor, New York 11724. Second class postage pending is paid at Cold Spring Harbor and additional mailing offices. POSTMASTER: Send address changes to Cold Spring Harbor Laboratory, 10 Skyline Drive, Plainview, New York 11803-2500.

Subscriptions: Barbara Terry, Subscription

Manager. Personal: U.S. \$70; R.O.W. \$115 (includes airlift). Institutional: U.S. \$245; R.O.W. \$290 (includes airlift). Orders may be sent to Cold Spring Harbor Laboratory Press, Fulfillment Department, 10 Skyline Drive, Plainview, New York 11803-2500. Telephone: Continental U.S. and Canada 1-800-843-4388; all other locations 516-349-1930. FAX 516-349-1946. Personal subscriptions must be prepaid by personal check, credit card, or money order. Claims for missing issues must be received within 4 months of issue date.

Advertising: Deborah Dufton, Advertising Manager, Cold Spring Harbor Laboratory Press, 1 Bungtown Road, Cold Spring Harbor, New York 11724-2203. Phone: 516-367-8351; FAX 516-367-8334.

Copyright information: Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Cold Spring Harbor Laboratory Press for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$5.00 per copy is paid directly to CCC, 21 Congress Street, Salem, Massachusetts 01970 (1054-9803/95 + \$5.00). This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works, or for resale.

Copyright © 1995 by Cold Spring Harbor Laboratory Press

REVIEW

Genetic Privacy: From the Laboratory to the Legislature Lori B. Andrews **209**

RESEARCH PAPERS

An Expression-independent Catalog of Genes from Human Chromosome 22 James A. Trofatter, Kimberly R. Long, Jill R. Murrell, Christy J. Stotler, James F. Gusella, and Alan J. Buckler **214**

Molecular Cloning and RARE Cleavage Mapping of Human 2p, 6q, 8q, 12q, and 18q Telomeres Roberto A. Macina, Ken Morii, Xue-Lan Hu, Dimitri G. Negorev, Chrysanthe Spais, Lisa A. Ruthig, and Harold C. Riethman **225**

A YAC-based Contig of 1.5 Mb Spanning the Human Multidrug Resistance Gene Region and Delineating the Amplification Unit in Two Human Multidrug-resistant cell lines Kiyoyuki Torigoe, Seiji Sato, Hitoshi Kusaba, Kimitoshi Kohno, Michihiko Kuwano, Katsuzumi Okumura, Eric D. Green, Lap-Chee Tsui, Stephen W. Scherer, David Schlessinger, and Morimasa Wada **223**

Functional Expression of Yeast Artificial Chromosome–Human Multidrug Resistance Genes in Mouse Cells Hitoshi Kusaba, Kimitoshi Kohno, Keizo Asakuno, Michihiko Kuwano, Katsuzumi Okumura, Eric D. Green, David Schlessinger, and Morimasa Wada **245**

Directed Integration of the Physical and Genetic Linkage Maps of Swine Chromosome 7 Reveals that the SLA Spans the Centromere Timothy P.L. Smith, Gary A. Rohrer, Leeson J. Alexander, Deryl L. Troyer, Kathleen R. Kirby-Dobbels, Mark A. Jancen, Dean L. Cornwell, Charles F. Louis, Lawrence B. Schook, and Craig W. Beattie **259**

(continued)

The Genexpress Index: A Resource for Gene Discovery and the Genic Map of the Human Genome

Rémi Houlgatte,
Régine Mariage-Samson,
Simone Duprat, Anne Tessier,
Simone Bentolila, Bernard Lamy,
and Charles Auffray

272

LETTERS

An Autosomal Recessive Nonsyndromic Form of Sensorineural Hearing Loss Maps to 3p-*DFNB6*

Kunihiro Fukushima,
Arabandi Ramesh,
C.R. Srikanth Srisailapathy, Li Ni,
Sigrid Wayne, Marsha E. O'Neill,
Guy Van Camp, Paul Coucke,
Pawan Jain, Edward R. Wilcox,
Shelley D. Smith, Judith B. Kenyon,
Ross I.S. Zbar, and
Richard J.H. Smith

305

PCR METHODS AND APPLICATIONS

Reduction of Mispriming in Amplification Reactions with Restricted PCR

László G. Puskás and Sándor Bottka

309

Approach to Genotyping Errors Caused by Nontemplated Nucleotide Addition by *Taq* DNA Polymerase

Jeffrey R. Smith, John D. Carpten,
Michael J. Brownstein,
Soumitra Ghosh,
Victoria L. Magnuson,
Dennis A. Gilbert, Jeffrey M. Trent,
and Francis S. Collins

312

Corrigendum

318

Product News

320

COVER YAC-human MDR gene expression in LMD1-V500 cells. (For details, see Kusaba et al., p. 245.)