

2020 US NAT/Nucleic Acid Testing Analyzers and Reagents for 100 Tests: Supplier Shares and Strategies, Volume and Sales Segment Forecasts by Product-Competitive Profiles, Technology and Instrumentation Review, Opportunities for Suppliers

https://marketpublishers.com/r/2A3BD9BD4C61EN.html

Date: February 2020

Pages: 1157

Price: US\$ 7,500.00 (Single User License)

ID: 2A3BD9BD4C61EN

Abstracts

Highlights

Comprehensive 1,157-page market segmentation analysis of the US NAT market.

Major issues pertaining to the US NAT laboratory practice, as well as key economic, regulatory, demographic, social and technological trends with significant market impact during the next five years.

An extensive review of DNA probe and biochip technologies, test formats, detection methodologies, trends in testing automation and amplification methods.

Five-year test volume and reagent sales forecasts for the following categories:

Infectious Diseases

Cancer

Forensic Testing

Genetic Diseases

Paternity Testing/HLA Typing



Review of testing methodologies and instrumentation technologies.

Feature comparison of automated and semiautomated analyzers.

Sales and market shares of leading suppliers.

Over 60 specific opportunities for NAT instruments, test systems, IT and auxiliary products.

Profiles of major suppliers, and emerging market entrants, including their sales, product portfolios, marketing tactics, technological know-how, new products in R&D, collaborative arrangements and business strategies.

Alternative market penetration strategies.

Potential market entry barriers and risks.

Business planning issues and concerns.

Contains 1,157 pages and 65 tables



Contents

I. INTRODUCTION

II. MAJOR PRODUCT DEVELOPMENT OPPORTUNITIES

- A. Instrumentation
- B. Reagent Kits and Test Systems/panels
- C. Computers, Software and Automation
- D. Auxiliary Products

III. DESIGN CRITERIA FOR DECENTRALIZED TESTING PRODUCTS

IV. ALTERNATIVE MARKET PENETRATION STRATEGIES

- A. Internal Development
- B. Collaborative Arrangements
- C. University Contracts
- D. Distribution Strategies For Decentralized Testing Markets

V. POTENTIAL MARKET ENTRY BARRIERS AND RISKS

- A. Market Maturity
- B. Cost Containment
- C. Competition
- D. Technological Edge And Limitations
- E. Patent Protection
- F. Regulatory Constraints
- G. Decentralized Testing Market Challenges

VI. MARKET AND TECHNOLOGY REVIEW

- A. DNA Sequencing
 - 1. Introduction
 - 2. Sequencing Methods
 - 3. Autoradiography
 - 4. The Human Genome Project
 - 5. Sequencing Automation
 - 6. Image Scanners



- 7. Fluorescent Detection
- 8. Gene Profiling
- 9. Gene Expression
- 10. Polymorphism Screening
- 11. Protein Interaction Networks
- B. DNA and RNA Probe Technologies
 - 1. Basic Principles
 - 2. Probe Preparation
 - 3. The DNA Probe Test
 - 4. Test Formats
 - 5. Labeling Techniques
 - 6. Amplification Methods
- C. Detection Technologies
 - 1. Radioactive Methods
 - a. Overview
 - b. Major Isotopes

P-32

S-35

H-3

I-125

- 2. Non-Isotopic Methods
 - a. Enzymatic Labels
 - b. Chemical Labeling

Indirect Chemical Labeling

Direct Chemical Labeling

- c. Fluorescence
- d. Chemiluminescence
- e. Electrical Conductivity
- D. Molecular Diagnostic Instrumentation Review
 - 1. Abbott LCx
 - 2. Beckman Coulter/Biomek FK
 - 3. BD Viper System with XTR Technology
 - 4. BD Innova
 - 5. Becton Dickinson SDA
 - 6. bioMerieux NucliSENS easyMAG
 - 7. bioMerieux NucliSENS easyQ and MiniMAG
 - 8. Bio-Rad GeneScope
 - 9. Cepheid GeneXpert
 - 10. Curetis Unyvero



- 11. GenMark Dx eSensor XT-8
- 12. Hologic/Gen-Probe Panther
- 13. Hologic/Gen-Probe Tigris/DTS
- 14. HTG Molecular Edge
- 15. Life Technologies QuantStudio Dx
- 16. Qiagen QIAsymphony RGQ
- 17. Roche Cobas Amplicor
- 18. Roche Cobas TaqMan
- 19. Roche Cobas TagMan
- 20. Roche Cobas TaqMan AmpliPrep
- 21. Roche LighCycler
- 22. Roche Cobas 4800
- 23. Roche Cobas s
- 24. Siemens Versant
- 25. Tecan LS Series
- E. Biochips: Genosensors, Microarrays, and Labs-on-the-Chip

Liquid Transportation and Mixing

Separation

Reaction

Detection

- F. Pharmacogenomics
- G. Major Applications
 - 1. Microbiology/Infectious Diseases
 - a. Overview
 - b. Major Infectious Diseases

AIDS: HIV/HIV-1/2/Combo, HIVAg/HIV NAT, Western Blot, HTLV-I/II

Adenovirus

Aeromonas

Anthrax/Bacillus Anthracis

Arboviruses

Babesiosis

Bacillary Epithelioid Angiomatosis (BEA) and Other Bartonella (Rochalimaea)

Blastocystis Hominis

Brucella

Campylobacter

Candida

Chagas Disease

Chancroid

Chlamydia



Clostridium Difficile

Coronaviruses

Coxsackieviruses

Creutzfeldt-Jakob's Disease

Cryptosporidium Parvum

Cyclospora Cayetanensis

Cytomegalovirus

Ebola Virus

E. Coli

EchoVirus

Encephalitis

Enteroviruses

Epstein-Barr Virus

Giardia Lamblia

Gonorrhea

Granuloma Inguinale

Hantavirus

Helicobacter Pylori

Hepatitis: HAV NAT, HBV NAT, HBs Ag, HCV, HCV NAT, Anti-HBc, Anti-HBs, Anti-

HAV, Hepatitis Delta, HBc Ag, HBe Ag, ALT/SGPT

Herpes Simplex Virus

Human Herpes Virus-6 (HHV-6)

Influenza Viruses

Legionella

Lyme Disease

Lymphogranuloma Venereum (LGV)

Malaria

Measles (Rubeola)

Meningitis

Microsporidium

Mononucleosis

Mumps

Mycoplasma

Papillomaviruses

Parvovirus B19

Pneumonia

Polyomaviruses

Pseudomonas Aeruginosa

Rabies



Respiratory Syncytial Virus (RSV)

Rhinoviruses

Rotavirus

Rubella

Salmonellosis

Septicemia

Shigellosis

Staphylococcus Aureus

Streptococci

Syphilis

Toxoplasmosis

Trichomonas Vaginalis

Tuberculosis

Vibrio

West Nile Virus

Yersina

- 2. Cancer Testing
 - a. Overview
 - b. Major Cancer Types

Prostate

Lung

Colon and Rectum

Breast

Skin

Uterine

Leukemia

Oral

c. Oncogenes

Abl/abl-bcr

AIB1

BCL-2

BRCA1

CD44

C-fos

C-myb

C-myc

CYP17

Erb-B

HPC1



Ν	-	n	۱	/	С
---	---	---	---	---	---

P40

P51

P53

PIK3CA

PTI-1

Ras

Reg

Sis

Src

- 3. Genetic Diseases
 - a. Overview
 - b. Nucleic Acid Amplification
 - c. Chromosome Imaging
 - d. Genomics Technologies
 - e. Proteomics Technologies
 - f. Current Pharmacogenomic Tests
 - g. Future Pharmacogenomic Testing
 - h. Major Diseases

Achondroplasia

Autosomal Dominant Polycystic Kidney Disease

Cancer

Cosmetogenomics

Cystic Fibrosis

Down's Syndrome

Duchenne and Becker Muscular Dystrophy

Factor V (Leiden)

Factor IX Deficiency

Fragile X Syndrome

Heart Disease

Hemochomatosis

Hemophilia

Huntington's Disease

Maternal-Fetal Incompatibility

Multiple Endocrine Neoplasia

Phenylketonuria (PKU)

Polycystic Kidney Disease (PKD)

Prenatal Screening

Retinitis Pigmentosa



Retinoblastoma

Sickle Cell Anemia

Spinal Muscular Atrophy

Vitamin B12 Metabolism

- i. Social Issues and Concerns
- 4. Forensic Testing
 - a. Overview
 - b. Multilocus and Single Locus Probes

Multilocus Probes

Single Locus Probes

PCR and RFLP

- c. The FBI
- d. DNA Profile Data Banks

U.S.A.

U.K.

- e. Judicial Implementation
- f. Major Crime Categories
- g. Factors Contributing to the DNA Probe Market Expansion

Technology Availability

Use of Hair as Evidence

- h. Wildlife Forensics
- 5. Paternity Testing/HLA Typing
- 6. Other Applications
 - a. Disease Susceptibility Testing
 - b. Cardiovascular Diseases
 - c. Diabetes
 - d. Alzheimer's Disease
 - e. Periodontal Disease
 - f. Plasma Purification
 - g. Organ Transplantation
 - h. Water Contamination
 - i. Other
- H. Competing/complementing
 - 1. Monoclonal Antibodies/Immunoassays
 - 2. RNA Probes
 - 3. Two-Dimensional Electrophoresis
 - 4. Flow Cytometry

VII. U.S.A. MOLECULAR DIAGNOSTICS MARKET



- A. Executive Summary
- **B.** Business Environment
- C. Market Structure
- D. Market Size, Test Volume and Sales Forecasts, Major Supplier Sales and Market Shares

VIII. COMPETITIVE ASSESSMENTS

Abbott

Affymetrix

Agilent Technologies

Applied Gene Technologies

Arca Biopharma

Beckman Coulter/Danaher

Becton Dickinson

Biokit

bioMerieux

Bio-Rad

Biotest

Cepheid

Decode Genetics

Diadexus

Eiken Chemical

Elitech Group

Enzo Biochem

Exact Sciences

Fujirebio

Grifols

Hologic

Illumina

LabCorp

Leica Biosystems

Li-Cor Biosciences

Myriad Genetics

Ortho-Clinical Diagnostics

PerkinElmer

Proteome Sciences

Qiagen



Roche

Scienion

Sequenom

Shimadzu

Siemens Healthineers

Sierra Molecular

Takara Bio

Tecan Group

Thermo Fisher

XIII. APPENDIX: MAJOR UNIVERSITIES AND RESEARCH CENTERS

Developing Molecular Diagnostic Technologies



List Of Tables

LIST OF TABLES

Major Companies Developing or Marketing AIDS Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Adenovirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Campylobacter Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Candida Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Chlamydia Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Cryptosporidium Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing CMV Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing EBV Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Gonorrhea Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Helicobacter Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Hepatitis Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Herpes Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Influenza Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Legionella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Lyme Disease Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Malaria Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Measles Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Meningitis Molecular Diagnostic and Other



Direct Identification Tests

Major Companies Developing or Marketing Mononucleosis Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Mumps Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Mycoplasma Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Pneumonia Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing RSV Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Rotavirus Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Rubella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Salmonella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Septicemia Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Shigella Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Streptococci Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Syphilis Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Toxoplasmosis Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Trichomonas Molecular Diagnostic and Other Direct Identification Tests

Major Companies Developing or Marketing Tuberculosis Molecular Diagnostic and Other Direct Identification Tests

Oncogenes Potential Application in Cancer Diagnosis

Major Companies Developing or Marketing Cancer Molecular Diagnostic Tests
Major Companies Developing or Marketing Molecular Diagnostic Tests For Genetic
Diseases

U.S.A.

Molecular Diagnostics Test Volume And Sales By Major Application U.S.A.

Laboratories Performing DNA Sequencing By Market Segment



U.S.A.

Molecular Diagnostics Market Potential Laboratory Universe by Market Segment

U.S.A.

Molecular Diagnostics Test Volume by Major Application

U.S.A.

Major Infectious Disease Test Volume by Assay

U.S.A.

Major Infectious Disease Test Volume by Method

U.S.A.

Molecular Diagnostics Market By Major Application

U.S.A.

Molecular Diagnostics Market Estimated Sales And Market Shares of Major Suppliers

U.S.A.

Major Infectious Disease Diagnostics Market by Assay

U.S.A.

AIDS Testing Market Estimated Sales by Major Supplier

U.S.A.

Adenovirus Testing Market Estimated Sales by Major Supplier

U.S.A.

Chlamydia/Gonorrhea Testing Market Estimated Sales by Major Supplier

U.S.A.

CMV Testing Market Estimated Sales by Major Supplier

U.S.A.

Echovirus Testing Market Estimated Sales by Major Supplier

U.S.A.

Enterovirus Testing Market Estimated Sales by Major Supplier

U.S.A.

EBV Testing Market Estimated Sales by Major Supplier

U.S.A.

Hepatitis C Testing Market Estimated Sales by Major Supplier

U.S.A.

HIV/Hepatitis Blood Screening NAT Market Reagent Sales by Major Supplier

U.S.A.

Herpes Testing Market Estimated Sales by Major Supplier

U.S.A.

Influenza Testing Market Estimated Sales by Major Supplier

U.S.A.

Meningitis Testing Market Estimated Sales by Major Supplier

U.S.A.



Mycoplasma Testing Market Estimated Sales by Major Supplier U.S.A.

Pneumonia Testing Market Estimated Sales by Major Supplier U.S.A.

Rabies Testing Market Estimated Sales by Major Supplier U.S.A.

RSV Testing Market Estimated Sales by Major Supplier U.S.A.

Salmonella Testing Market Estimated Sales by Major Supplier U.S.A.

Shigella Testing Market Estimated Sales by Major Supplier U.S.A.

West Nile Virus Nat Market Reagent Sales by Major Supplier



I would like to order

Product name: 2020 US NAT/Nucleic Acid Testing Analyzers and Reagents for 100 Tests: Supplier

Shares and Strategies, Volume and Sales Segment Forecasts by Product-Competitive

Profiles, Technology and Instrumentation Review, Opportunities for Suppliers

Product link: https://marketpublishers.com/r/2A3BD9BD4C61EN.html

Price: US\$ 7,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/2A3BD9BD4C61EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below



and fax the completed form to +44 20 7900 3970