



Life Science Research
DNA Analysis



DNA Analysis



Description

Vector or plasmid production:
Vector design and construction

Genotyping, strain typing: DNA isolation and purification from tissues, cell cultures, or bacterial cells

Vector or plasmid production: Recombinant DNA purification from host

Applications

Genotyping
Vector or plasmid production
Strain typing

Technologies

Nucleic acid electrophoresis
Image analysis
PCR

Nucleic acid sample preparation
Spectrophotometry and fluorometry
Automated nucleic acid electrophoresis

Related Products



Wide mini ReadySub-Cell™ GT cell
ReadyAgarose™ 96 Plus gels
Molecular Imager® Gel Doc™ XR system
Quantity One® 1-D analysis software
Ethidium bromide



Genotyping
Quantum Prep® plasmid miniprep kit
AquaPure™ genomic DNA isolation kit
Chelex® 100 resin

Vector or Plasmid Production
Quantum Prep plasmid miniprep kit
AquaPure genomic DNA isolation kit
SmartSpec™ Plus spectrophotometer
Experion™ automated electrophoresis system



Genotyping: Amplification of specific gene targets
Vector or plasmid production: Validation of construct by mutation detection and/or sequence analysis

Genotyping: Electrophoresis and further characterization, including specific mutation analysis, SNP mapping, and strain typing

The search for mutations in genomic DNA is important in the study of genetic factors involved in the development of cancer, as well as in a variety of single- and multiple-gene disorders. DNA polymorphisms are useful tools for ecological and evolutionary studies of terrestrial, marine, and microbial organisms, with applications ranging from species identification to delineation of population structure and monitoring of genetic diversity. Bio-Rad has a long history of providing high-quality reagents, devices, and software for high-resolution analysis of DNA, as well as expert support and protocol development tools.

- PCR
- Quantitative PCR (qPCR)
- Nucleic acid electrophoresis
- Nucleic acid sequencing
- Gel drying
- Mutation analysis

- Nucleic acid electrophoresis
- Mutation analysis
- Image analysis
- Nucleic acid blotting
- Multiplex suspension array technology — nucleic acid
- Spectrophotometry and fluorometry
- ELISA
- Data analysis and bioinformatics



- Genotyping**
- MiniOpticon™ real-time PCR system
 - MyiQ™ single-color real-time PCR system
 - iQ™5 multicolor real-time PCR system
 - iQ™ supermix
- Vector or Plasmid Production**
- Sequi-Gen® GT system
 - PowerPac™ HV power supply
 - Model 583 and HydroTech™ gel drying systems

- CHEF Mapper® XA system
- DCode™ system for DGGE
- ReadyAgarose 96 Plus gels
- Molecular Imager Gel Doc XR system
- EZ Load™ HT molecular markers
- VersaFluor™ fluorometer
- Quantity One 1-D analysis software
- Bio-Plex® 200 system with HTF
- Benchmark™ Plus microplate spectrophotometer system

DNA Analysis

Sample > Construction > Sample Preparation > Validation > Detection and Analysis > Genotype or Vector

For a complete list of products and related product information, refer to the 2006/2007 catalog, visit us on the Web at www.bio-rad.com, or contact your local Bio-Rad representative.

Ordering Information

Catalog #	Description	Catalog #	Description
Construction		Detection and Analysis	
170-4489	Wide Mini ReadySub-Cell GT Cell , includes buffer tank, lid and electrodes, leveling bubble; accommodates 20-well, 32-well, and 2 x 32-well wide mini ReadyAgarose gels	Varies	CHEF Mapper XA Chiller System
Varies	ReadyAgarose 96 Plus Gels , TBE, plus ethidium bromide, 4 x 26-well (96 plus)	Varies	CHEF-DR[®] III System
Varies	ReadyAgarose 96 Plus Gels , TAE	170-9080	DCode System for DGGE , 120 V, for 16 cm gels with single prep well (1 mm), includes comb gasket, 2 sets of clamps, Model 475 gradient former, all parts required to cast gradient gels
170-8170	Molecular Imager Gel Doc XR System , PC	170-9081	DCode System for DGGE , 220/240 V, for 16 cm gels with single prep well (1 mm)
170-8171	Molecular Imager Gel Doc XR System , Mac	170-9082	DCode System for DGGE , 100 V, for 16 cm gels with single prep well (1 mm)
170-9600	Quantity One 1-D Analysis Software	170-9083	DCode System for DGGE , 120 V, for 10 cm gels with 2 prep wells (1 mm)
161-0433	Ethidium Bromide Solution , 10 mg/ml, 10 ml	170-9084	DCode System for DGGE , 220/240 V, for 10 cm gels with 2 prep wells (1 mm)
161-0430	Ethidium Bromide Tablets , 10 x 10 mg	170-9085	DCode System for DGGE , 100 V, for 10 cm gels with 2 prep wells (1 mm)
161-0786	Bio-Safe[™] Coomassie Stain , 1 L	164-5050	PowerPac Basic Power Supply
170-9703	MyCycler Thermal Cycler System	170-8361	EZ Load HT Molecular Marker , 100 bp–2 kb, 160 applications
Sample Preparation		170-8362	EZ Load HT Molecular Marker , 500 bp–10 kb, 160 applications
732-6100	Quantum Prep Plasmid Miniprep Kit , 100 preps	165-5003	Model 185 Vacuum Blotter Basic Unit
732-6340	AquaPure Genomic DNA Isolation Kit , for cultured cells and gram-negative bacteria	170-2402	VersaFluor Fluorometer , includes standard cuvette holder, 100 standard cuvettes, choice of 1 excitation and 1 emission filter
142-1253	Chelex 100 Resin , molecular biology grade, 50 g	170-9610	Quantity One Version Upgrade
170-2525	SmartSpec Plus Spectrophotometer	170-9612	Quantity One User Guide
700-7060	Experion System With Computer and Monitor	170-9615	Quantity One CFR Module
Validation		170-9300	FPQuest[™] Software
CFB-3120	MiniOpticon Real-Time PCR System , includes optical housing, MJ Mini thermal cycler, analysis software	171-000201	Bio-Plex 200 System
170-9770	MyiQ Single-Color Real-Time PCR Detection System , includes iCycler base, optics module, software CD-ROM, 96-well optical reaction module, optical-quality 96-well PCR plates, Microseal 'B' seals, communication cables, power cords, instructions	171-000205	Bio-Plex 200 System With HTF , includes high-throughput fluidics (HTF)
170-9780	iQ5 Multicolor Real-Time PCR Detection System , includes iCycler base, optics module, software CD-ROM, 5 installed filter sets, 96-well reaction module, calibration solutions, optical-quality 96-well PCR plates, Microseal 'B' seals, communication cables, power cord, quick reference cards, instructions	170-6930	Benchmark Plus Microplate Spectrophotometer System , PC, with temperature control, power cord, serial cable, Microplate Manager software, instructions
170-8860	iQ Supermix , 100 x 50 µl reactions	170-6935	Benchmark Plus Microplate Spectrophotometer System , PC, without temperature control
165-3802	Sequi-Gen GT System and PowerPac HV Power Supply , 21 x 40 cm		
165-3803	Sequi-Gen GT System and PowerPac HV Power Supply , 21 x 50 cm		
165-3804	Sequi-Gen GT System and PowerPac HV Power Supply , 38 x 50 cm		
165-3810	Sequi-Gen GT System and PowerPac HV Power Supply , 38 x 30 cm		
164-5056	PowerPac HV Power Supply		
165-1745	Model 583 Gel Dryer , 100/120 V		
165-1746	Model 583 Gel Dryer , 220/240 V		
165-1789	HydroTech Gel Drying System , 100/120 V, includes Model 583 gel dryer, HydroTech vacuum pump, instructions		
165-1790	HydroTech Gel Drying System , 220/240 V		

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Bio-Rad's real-time thermal cyclers are licensed real-time thermal cyclers under Applera's United States Patent No. 6,814,934 B1 for use in research and for all other fields except the fields of human diagnostics and veterinary diagnostics.

The Bio-Plex suspension array system includes fluorescently labeled microspheres and instrumentation licensed to Bio-Rad Laboratories, Inc. by the Luminex Corporation.

CHEF (U.S. Patent 5,549,796, issued to Stanford University) is exclusively licensed to Bio-Rad Laboratories, Inc.

DR technology is covered by U.S. Patent 4,878,008, issued to Bio-Rad Laboratories, Inc.

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