Genopattern Analyzer

NOW ON SALE!!

GP1000

SIMPLIFY ANNOYING IDENTIFICATION OF BACTERIUM AND VIRUSES.
CATCH ACCURATE DATA AT GENE LEVEL RIGHT NOW.

- Possible to identify each bacterium and viruses in the shortest 30 minutes (*) by the pattern analysis of "DNA Dissociation Wave" -

This is the newest analyzer using GENOPATTERN method, which is developed from the creative imagination. The base sequence of bacterium, viruses and all others is to be analyzed.

*(*1) The reaction time of a single-stranded DNA extension depends on samples or conditions.*

FEATURES

- No need to extract DNA samples - Sequential operation is possible from the reaction of a single-strand extension to the pattern analysis of wave.
- Everybody easily operates and uses the analyzer, which makes their operation errors reduced.
- No genome extraction is required, because test specimens (microbes, cells) become directly the test sample to be analyzed. (*2)
- High accurate temperature distribution is available over all well (48 samples) with individual zone temperature controller.
- Accurate wave pattern is obtained with step less temperature controller and rapid data scanning.
- Genera and species of bacteria and virus are classified and identified very easily by “Geno Master”. In addition, the master wave pattern can be registered.
- Most genes of animals, plants, microbes can be analyzed through the primer that is produced with the software “DESIGN SUPPORT TOOL FOR GENOPATTERN PRIMER” (*3).
- Available for a broad varieties of applications such as the inspection of infectious diseases to domestic animals & pets, the analysis of food allergy caused by food genes, the group expression of adverse drug reactions, the diagnosis of body predisposition or so.

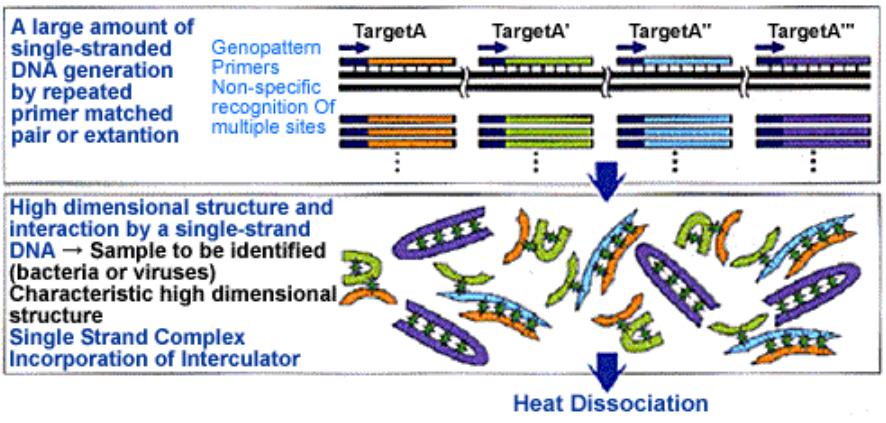
*(*2)All specimen might not become the test sample..*

*(*3) Optional accessory at extract cost.*

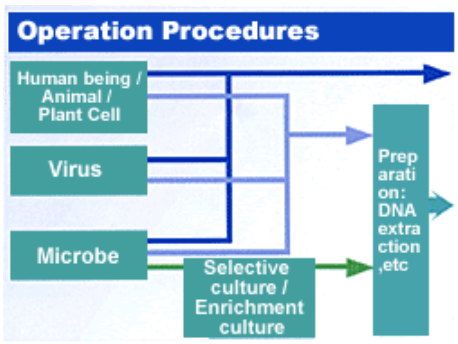
PRINCIPAL OF GENOPATTERN METHOD

Genopattern Method

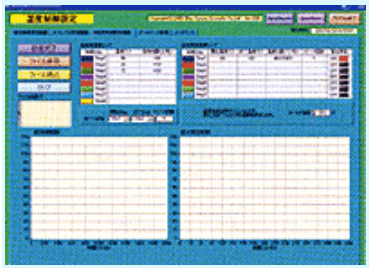
DNA strand is annealed with a primer for Genopattern on its multiple sites to generate multiple single-strand nucleic acids containing base sequences downstream of distinct sites, which are associated with the primer and distributed throughout the whole strand. These nucleic acid products interact with one another to form complexes consisting of a number of products. As the temperature is raised, these complexes become progressively dissociated and denatured. The process of this dissociation and denaturation is observed fluorometrically and visualized as a wave pattern by graphically plotting the rate of the change of fluorescence intensity vs. temperature.



MEASUREMENT FLOW



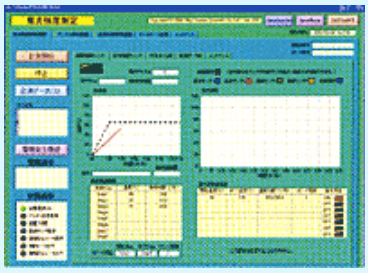
1. Input the program data of the temperature and time, which are necessary to the wave pattern analysis and the reaction number of single-strand extension.



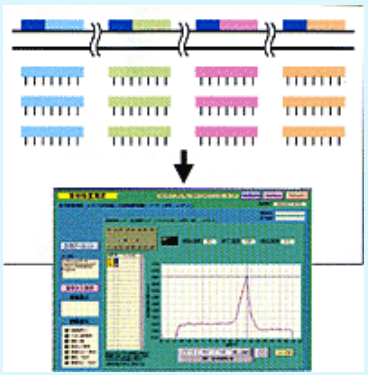
2. Put the sample and reagent into sample tubes.

3. Set samples

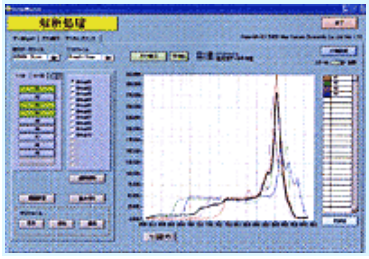
4. Start



5. Preparation process / wave pattern analysis / preparation process for wave pattern analysis: single-strand DNA extension reaction (approximately 30 min. to 2 hours).



6. Identify bacterium or viruses by pattern analysis software (Geno Master).



SPECIFICATIONS

Product Code	317110
Model	GP1000
Temperature Setting range	0-100deg.C
Temperature Rising Speed	1.6deg.C/sec
Temperature Falling Speed	1.4deg.C/sec
Temperature Rising/Falling Method	Peltier modules
Number of Sample·Tube Capacity	48 samples·200µL
Sample Capacity	50µL
Light Source	Blue LED
Photo Detector	Photo Multiplier
Power Source	AC100V 700W

Consists of System

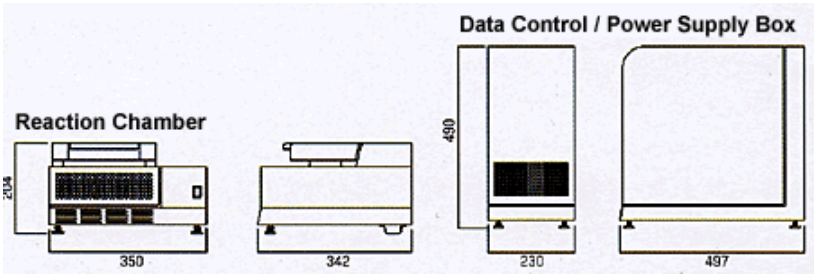
1. Reaction Chamber (Temperature control system + Optical measurement system)
2. PC/Interface
3. Data Control·Power Supply Box

Accessories

1.GP1000 tube (0.2ml, 50 ea)

2.Genopattern wave pattern Master Library—Geno Library (sample data·CD-ROM)

DIMENSITONS



(mm)

GP1000 REAGETNT TEST KIT

Product Code	317111	317112
Product Name	Universal reagent for bacteria Gene research by Genopattern: Adgene Geno-Universal Kit	Acid Fast bacteria detection reagent for bacterial gene research by Genopattern:Adgene Geno-Myco Kit
Content Volume	For 20 times	For 20 times
Delivery Conditions	Freezed	Freezed
Storage Conditions	-20—30deg.C at dark place	-20—30deg.C at dark place
Number of Freeze-thaw	Within 8 times	Within 8 times
Detectable Bacterium	Bacterium extracted from DNA sample, suspended in water· saline	Bacterium extracted DNA sample
Wave Pattern Detectable Bacterium	All bacteria	Mycobacterium genera
Bacterium Possible to be Identified	Depends on the master data.	Depends on the master data.
Necessary Amount of Sample	Over 300 ng/ tube of DNA,over 106 ea/tube of bacterial	Over 300 ng/ tube of DNA
Sample Preparation	DNA extraction (Some bacterium do not need)	DNA extraction
Kit Contents	1. Genopattern Primer 2. GP1000 Buffer Mix 3. Synthetic Enzyme (1&2 are absolutely necessary for Genopattern reaction as Adgene original components)	

Examples of bacterium samples possible to be identified by Universal reagent for bacteria Gene research by Genopattern:

Vibrio parahaemolyticus/ Pseudomonas aeruginosa/ Salmonellar typhimurium/ Enteroco/ Klebsiella pneumoniae/ Campyrobacter jejuni/ Shigella sonnei/ ccus faecalis/ Haemophilus influenzae/ Helicobacter pylori/ Staphylococcus pyogenes/ Mycobacterium bovis/ Escherichia coli/ Bacillus cereus/ Staphylococcus aureus/ Bacillus subtilis, etc…
(Master Data Library is to be enhanced and enriched upon available.)

* The above kit is for research use only.
* We have “economy kit” without synthetic enzyme. When using “economy kit”, you also need separate synthetic enzyme.
* "Genopattern Buffer Mix" should be used, when using DESIGN SUPPORT TOOL FOR GENOPATTERN PRIMER.

Reagent List

Product Code	Product Name
317111	Universal reagent for bacteria Gene research by Genopattern: Adgene Geno-Universal Kit
317112	Acid Fast bacteria detection reagent for bacterial gene research by Genopattern: Adgene Geno-Myco Kit
317113	Universal reagent for bacteria Gene research y Genopattern: Adgene Geno-Universal Kit, Economy Kit
317114	Acid Fast bacteria detection reagent for bacterial gene research by Genopattern: Adgene Geno-Myco Kit, Economy Kit
317115	Genopattern Buffer Mix (For Primer Design)

Adgene Geno-Universal Kit

OTHER OPTIONAL ACCESSORIES

Design Support Tool for Genopattern Primer

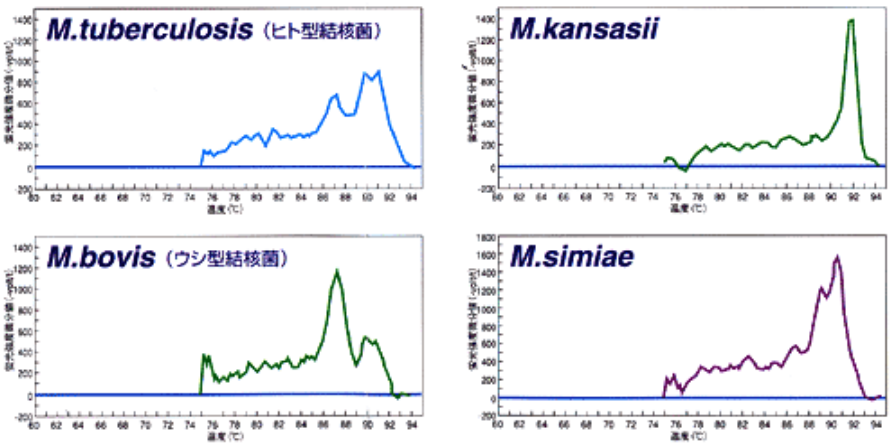
This design support tool helps your own design-making of Genopattern Primer freely. For details, please contact us

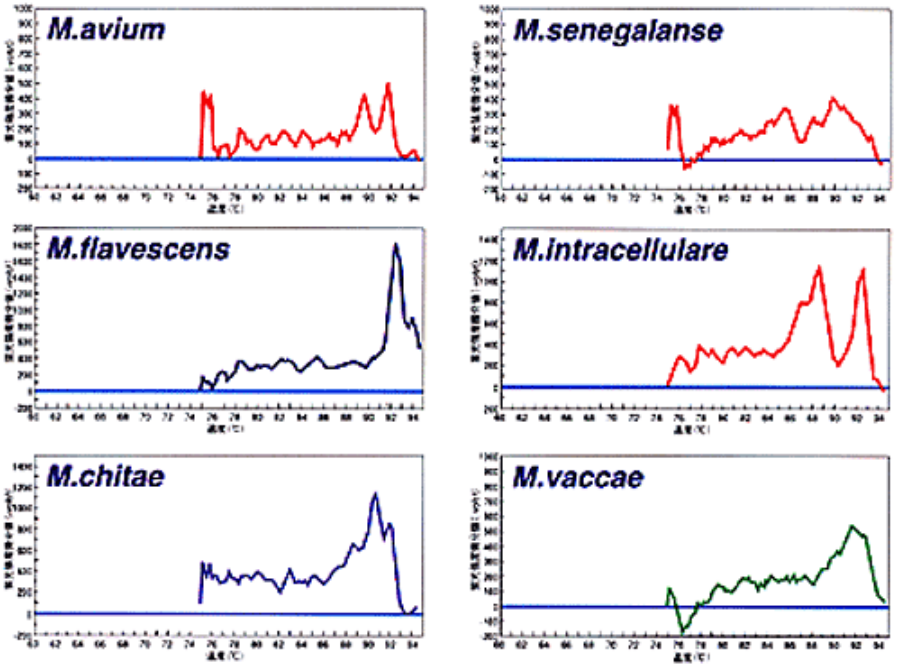
Wave Pattern Master Data Library of Genopattern Method —Geno Library

We are going to enhance & enrich a variety of wave pattern master data library in order to support your researches.

Wave Pattern Example (Acid Fast Bacteria)

The following wave patterns are a few examples that GP1000 can analyze.





Note: The above graphic wave patterns are image samples.

<For reference> Application to Genopattern method

Genopattern-RNA Method

The expression balance of subjective RNA-induced by drugs, is easy compared with the wave pattern.