arkray

Fully automated Gene analyzer

i-densy™

IS-5320

i-densy provides easy SNPs analysis of your choice

arkray, inc.

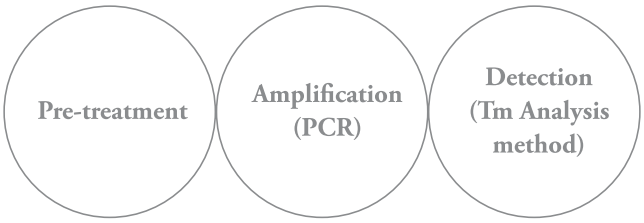
Fully automated Gene analyzer

i-densy™
IS-5320

Fully integrated automatic system from Pretreatment, amplification, to detection.

i-densy™ IS-5320 enables analysis of gene SNP (Single Nucleotide Polymorphism) related to metabolism of drugs, gene mutation by cancer.

All-in-one solution



Equipment features

Fully automated measurement
All what you need is to put reagent pack with sample applied in place and to press the start button. Up to 4 samples can simultaneously be measured. Additional measurement is available in the units that are not in use.

Easy-to-maintain
All regular maintenance required is cleaning of tip disposal tray and reaction tube set area.

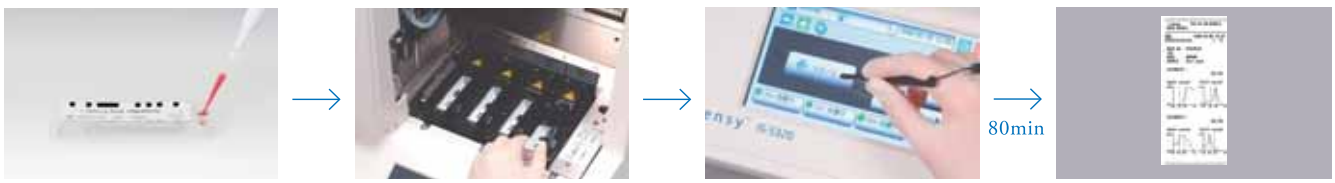
High speed measurement
The time required for measurement from start to result output is 80min using whole blood.

Space saving
A Space-saving genotyping system with built-in control PC and printer.

User management
For the protection of personal information, user management is possible for the use of instrument and result browsing.

Easy Operation, Easy Analysis

For gene analysis, what all you need is to put reagent pack with sample applied in place and to press the start button.



Apply sample to reagent pack

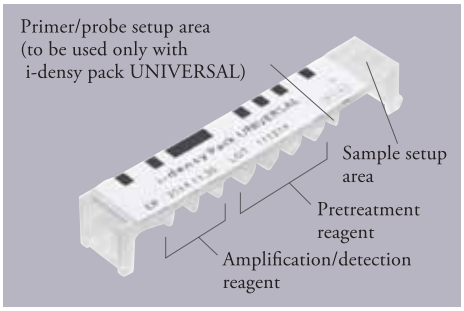
Put reagent pack, tip and reaction tube in place.

Press the start button

Printout of measurement result

※Operation procedure varies depending on the type of samples。

User friendly interface



i-densy -dedicated reagent pack

Reagent features

Compact reagent pack

All of necessary reagent is packed into reagent pack. Waste liquid bottle is unnecessary since waste stays in reagent pack.

Multi type sample support

i-densy can handle various type of samples such as whole blood, oral swab and purified nucleic acids.

i-densy Pack UNIVERSAL

With i-densy Pack UNIVERSAL, just designing primer and probe enables users to measure any item.

Multiplex reagent

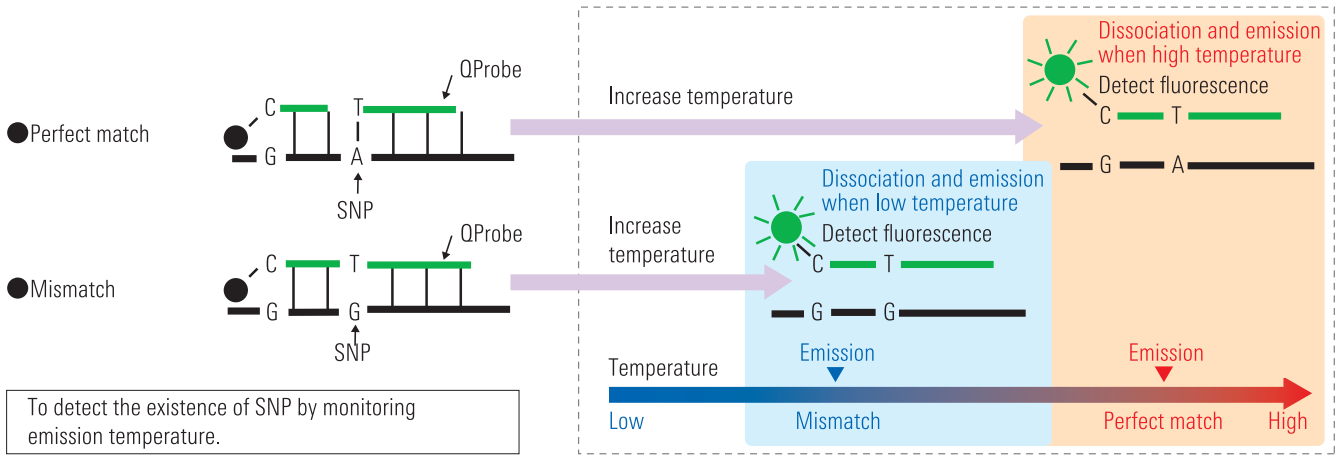
Measurement of up to 3 SNPs is possible with one pack.

The principle of SNP typing

Amplify DNA fragment with target SNP by PCR and unite it with Qprobe that have the complementary sequences. The degree of conformance of the complementary sequence makes a difference in temperature where Qprobe dissociates. SNP can be evaluated by detecting fluorescent emitted from the dissociation.

※This system adopts Quenching Probe system patented by J-Bio21 Corporation.

Q probe: A probe with a terminal fluorescently-labeled cytosine base. Fluorescence decreases when it's bound to DNA fragment. Fluorescence is emitted when it gets dissociated from DNA fragment.



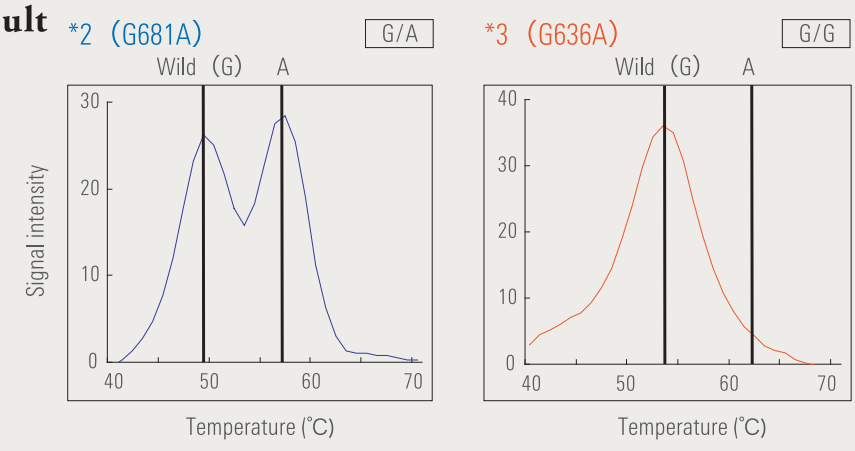
Examples of analysis result

Example of CYP2C19(*2/*3) Test kit

Measurement result ：CYP2C19 *2

*2(G681A): G/A (Wild-type/ Mutant-type) Hetero

*3(G636A): G/G (Wild-type/ Wild-type) Homo



Measurement item and Significance

Measurement item	Significance
CYP2C9 (*3)	Prediction of capacity to metabolize drugs such as Sulfonylurea drug and anticoagulant
CYP2C19 (*2/*3)	Prediction of capacity to metabolize drugs such as Proton pump inhibitor(PPI)
NAT2(*6/*5/*7)	Prediction of capacity to metabolize drugs such as antitubercular agent Isoniazid
SULT1A1(*2)	Prediction of capacity to metabolize drugs such as breast cancer treatment medicine Tamoxifen Citrate (TAM)
UGT1A1(*28/*6)	Prediction of dosage and administration of irinotecan
β 2AR/ β 3AR/UCP-1	Prediction of the difference in basal metabolism
Others	The use of i-densy Pack UNIVERSAL enables measurement of any given item such as TCF7L2 gene (transcription factor-7-like 2 gene) and is greatly influence your risk of Type-2 diabetes.

Specification

Measuring object	Whole blood, Oral swab, Purified nucleic acids
Measurement principle	PCR + Tm Analysis method
Necessary sample quantity	Whole blood, oral swab: 50μL Purified nucleic acids: 4μL
Processing speed	Whole blood: 90min/4samples (80min/sample) Oral swab: 85min/4samples (75min/sample) Purified nucleic acid: 75min/4samples (65min/sample)
Reagent to be used	i-densy Pack series
Maximum sample load	4 samples
Sample container	Integrated with reagent pack
Sampling method	Automatic aspiration using sampling pipetter
Reaction temperature	40 ～ 95℃
Temperature change speed	heating : 3.0℃ /sec, cooling : 1.5℃ /sec
Warm up time	Within 3 minutes
Data storage capacity	500 measurement results (1 user) Up to 25 users registrable
Screen	color LCD
Built-in printer	58 mm thermal line printer
Operation	Touch screen
External output	Ethernet x 1, USB x 1
Measurement environment	Temperature : 10 - 30℃ Humidity : 20 - 80%RH (No condensation)
Power supply	AC100V 50/60Hz, 300VA (Maximum)
Dimension	410(width) x 450 (depth) x 415(height)mm
Weight	27kg

※Please note that external appearance and specification may change for improvement without prior notice.

Reagent

i-densy Pack

This photo is i-dency Pack UNIVERSAL.

▲i-densy dedicated reagent i-densy Pack

i-densy Oral Swab Collecting Kit

▲Oral swab collect kit

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