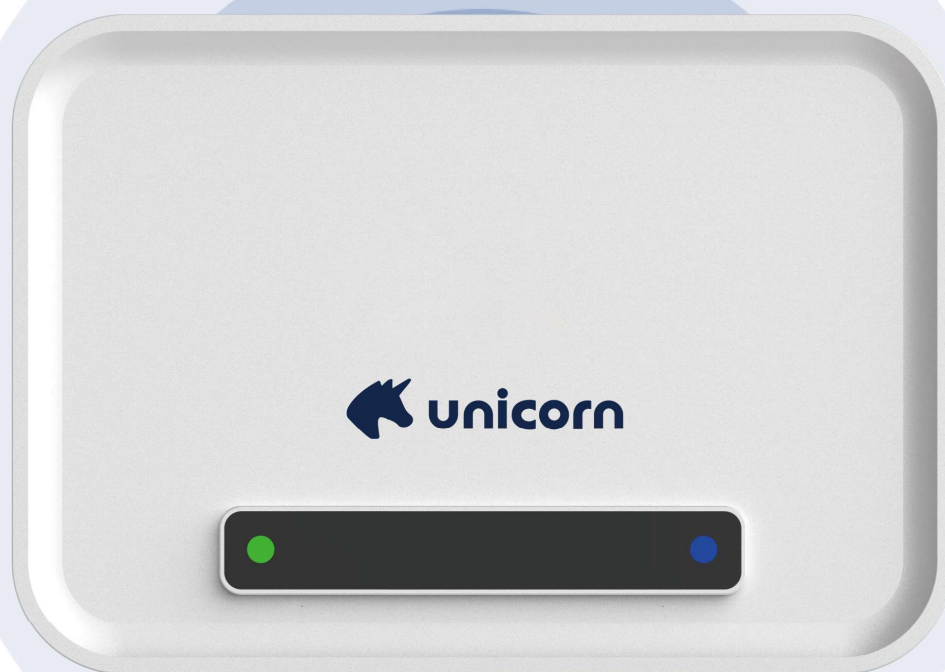
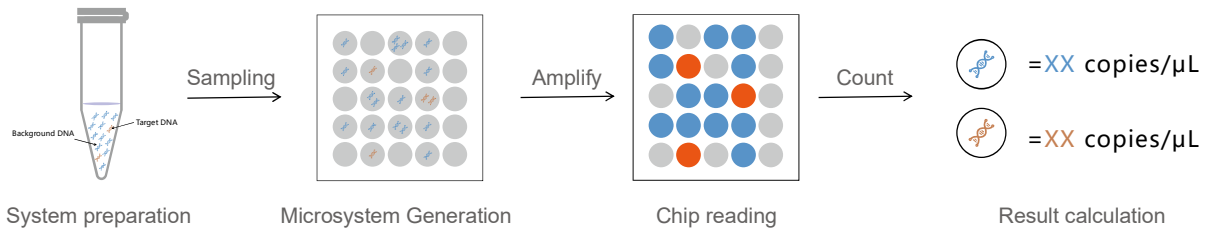


AccuONE-200 dPCR



Digital PCR Principle



The strategy of digital PCR - "divide and rule". A standard PCR reaction is allocated to a large number of micro reactors, and each reactor contains or does not contain one or more copies of the target molecule (DNA template) to achieve "single molecule template PCR amplification". After amplification, the number of positive wells is "counted" by the number of positive reactors, and then the number of positive copies is calculated according to Poisson's formula.

Technical Advantages



Direct

Interpretation by endpoint method, no standard curve required



Sensitive

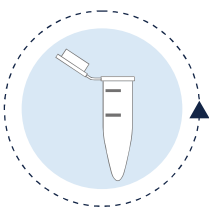
Single copy detection, suitable for low concentration samples



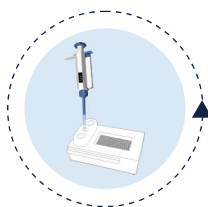
Stable

Not susceptible to inhibitory factors & amplification efficiency

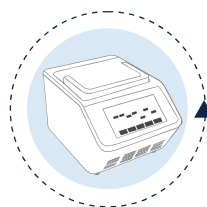
Workflow



1. System configuration



2. Sample preparation



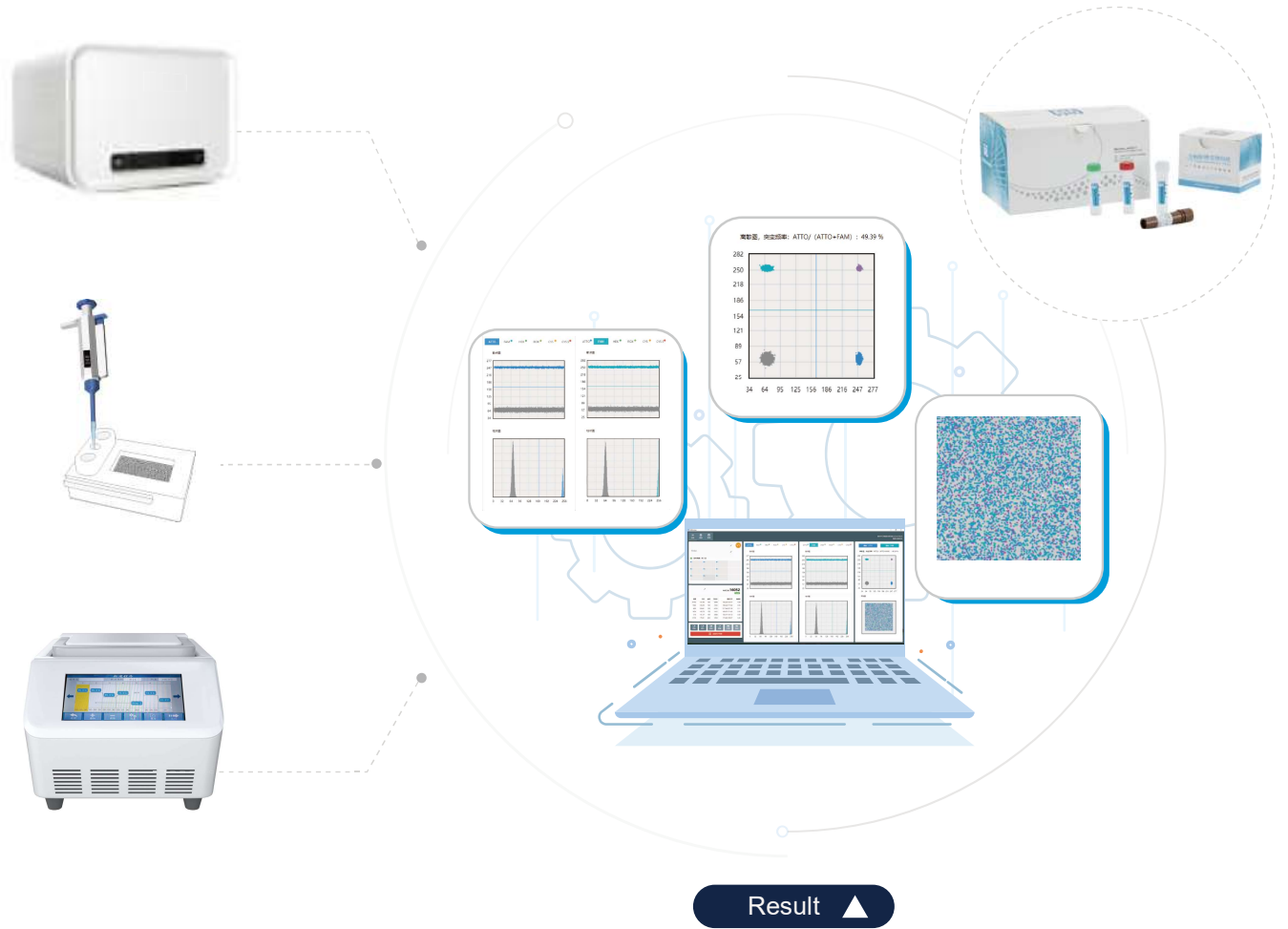
3. PCR



4. Chip read & analyze

Whole process < 2.5h

■ AccuONE-200 dPCR



■ Consumable & Reagent

▼ Biochip



High-precision nano-scale chips, optional specifications, suitable for various application

▼ dPCR Master Mix



DNA and RNA one-step reaction system, with high specificity and efficiency

▼ Seal Oil



Inert sealing liquid, effectively avoid amplification evaporation and prevent contamination

Product Features



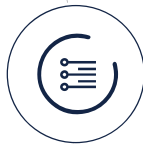
Micro-cavity chip

The solid phase segmentation route is pre-set with high-precision micron-level chambers to effectively avoid cross interference.



Simple sample preparation

No sample loading device is required, sample preparation is done by pipetting, and it can be completed in 10 seconds without any other consumables.



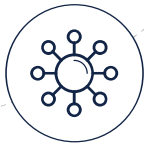
Multicolor fluorescence

The biochip reader is equipped with a 2-6 color fluorescence detection system, which can realize multiple target detection in a single sample, saving samples while significantly improving detection efficiency.



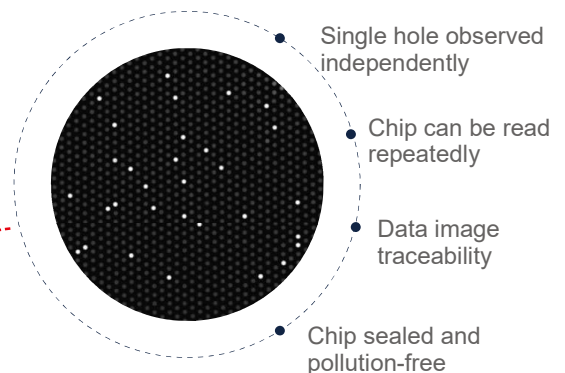
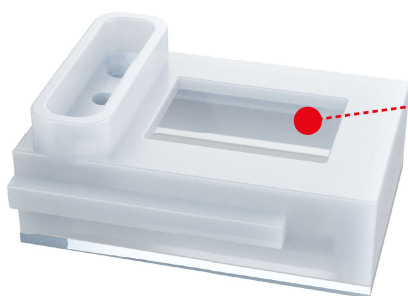
Various options

Chips with 10k-100k units are provided, and various types of premixed solutions such as probe method, dye method, and one-step method are adapted.



Open and compatible

This system is compatible with a variety of mainstream brand reagents (Thermo, Roche, Qiagen, Takara, Transgene, Yeasen, etc.), users only need to make simple adjustments to the above reagent systems to quickly achieve compatibility



Application



Application Kits

Area	Indication	Product name	Target	Sample type
Tumor	NSCLC	EGFR Gene mutation	L858R T790M 19d 20i	Tissue/plasma
	Colorectal cancer	KRAS Gene mutation	G12C	
		BRAF Gene mutation	V600E	
	Breast cancer	Pik3Ca Gene mutation	E542K E545K 1047R	Tissue/plasma
		Her2 Gene test	Her2	
	Leukaemia	BCR-ABL Fusion gene	BCR-ABL(-P210)	Bone marrow peripheral blood
	Alcohol metabolism	ALDH2 Gene mutation	ALDH2	Oral swab
Pathogen	Tuberculosis	TB drug resistance	four drug resistance genes	Sputum, irrigation fluid
		TB typing	Typing	Sputum
	Bacteria	Multiplex test	Listeria/Salmonella/ Escherichia coli/ Staphylococcus aureus	Plasma/body fluid/feces
		Multiplex test	Staphylococcus aureus/ Staphylococcus epidermidis/ Legionella	
	HBV	HBV test	HBV	
	Infection	Mycoplasma, Chlamydia	Mycoplasma, Chlamydia	
	Infection	EB virus test	EB	
	Infection	CMV test	CMV	
	Respiratory	Flue test	Cov-19,Flu A,Flu B	
	Leukaemia	HTLV-1 test	HTLV-1	
Clostridium difficile	Clostridium difficile test	A/B/GDH		
Drug resistance	Drug resistance testing needs	mecA-Methicillin	Staphylococcus	
		KPC-carbapenems	Enterobacteriaceae	
		Rifampicin	Mycobacterium tuberculosis	
		VanA/B-vancomycin	Staphylococcus	

Specification

Model	AccuONE-200
Micro-reaction unit	micro-cavity chip, solid phase segmentation
Bio-chip type	10k, 22k, 120k option, other type is customizable
Droplet preparation	Pipetting without additional micro-droplet generation system
Reaction volume	15ul standard, adjustable within the 40ul range
Sample preparation time	≤10 seconds/piece
Excitation light source	High-efficiency maintenance-free LED light source
Detector	High-resolution CMOS sensor
Valid time of chip reading	Read repeatedly within 2 weeks
Number of fluorescence channel	6
Compatible dyes	Atto425, FAM, SYBR Green, EvaGreen, VIC/HEX, JOE, CY3, TAMARA, ABY, ROX, JUN, TYE655, CY5, Texas Red, CY5.5 and other similar wavelength dyes
Sample detection throughput	at least 12 samples at one time
Daily detection throughput	360 in a single day (8 hours)
Sample detection time	≤1 minute/piece, ≤12 minutes/12 pieces
Detection sensitivity	≤0.001%, can detect single-copy genes
Dynamic range	≥5 orders of magnitude, 1~250000 copies/sample
Reagent versatility	Compatible with probe method and dye method
Supporting reagents	10× high-concentration DNA detection reagent and 5× RT-dPCR one-step RNA detection reagent
Maximum sample input	≥12 μl
Software	Calculation of copy number, copy number concentration, mutation abundance, confidence interval range, accuracy; threshold line automatic or manual division, single or unified threshold division; output excel data, two-dimensional scatter plot, two-dimensional bar chart, three-dimensional space map; automatically identify complex droplet clusters, output chip actual hole position discrimination map; data quality control function, etc. automatically generate test reports;
Data security	Permission management, auditing and electronic signature functions to ensure the validity and reliability of data and meet FDA 21 CFR Part11 compliance requirements
Power supply	220V/50Hz-60Hz
Dimension (W×D×H, mm)	Thermal cycler: 480mm×330mm×340mm, Biochip reader: 475×385×308mm
Net weight (KGS)	Thermal cycler: 8.9 , Biochip reader: 1.2

Order Information

Digital PCR Instrument

Name	Note	Order No.	Format
Gene amplifier	Micro-unit amplification	IN0202	1PC
Biochip reader(6 colors)	Bio-chip reading	IN0310	1PC

Digital PCR Reagent & Consumable

Name	Note	Order No.	Format
dPCR biochip box	Biochip version 2.0	CM0204	32T/box
Seal oil	Chip oil seal	CM0102	100T
10× probe method mix (including UDG)	Applied to probe method	MX0109	100T
10× Eva dye mix (including UDG)	Applied to dye method	MX0110	100T
10× dPCR Taq Master Mix(ROX, UDG-free)	Applied to probe method	MX0111	100T
One-step mix for bio chips, ROX substrate	Applied to probe method	MX0203	100T

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