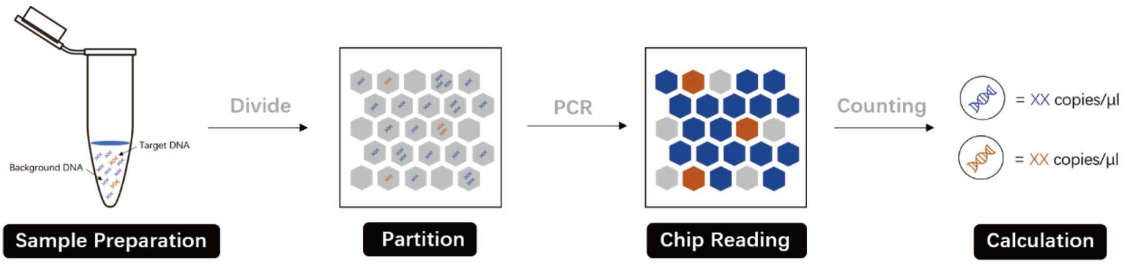
Life Science Equipment

unicorn

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

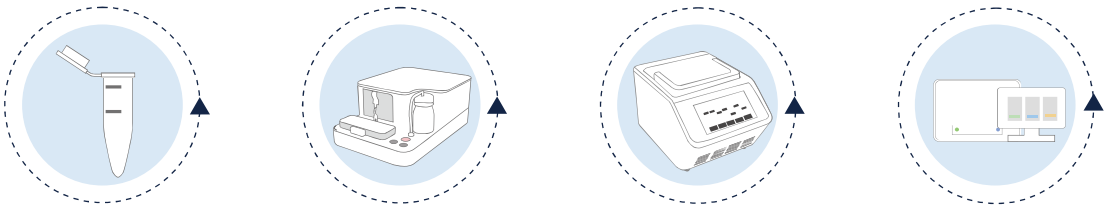
Sensitive

Single copy detection, suitable for low concen-tration samples

Stable

Not susceptible to inhibitory factors & amplification efficiency

Workflow

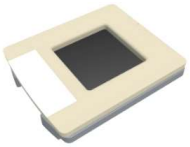


1. System preparation
2. Micro-unit generation
3. PCR amplification
4. Chip read & analyze

Whole process < 2.5h

AccuONE-200 dPCR

Consumable & Reagent

▼ Biochip	▼ dPCR Master Mix	▼ Seal Oil
		
High-precision nano-scale chips, optional specifications, suitable for various application	DNA and RNA one-step reaction system, with high specificity and efficiency	Inert sealing liquid, effectively avoid amplification evaporation and prevent contamination
Quadruple throughput, (4 tests)	DigitalAmp PCR Master Mix(10x) One-step RT-dPCR Mix(5x) DigitalAmp PCR Master Mix(SYBR Green)	50ml (100 test)

Product Features

Micro-cavity chip

MEMS process processing, micro-nano chip processing, uniform chamber volume.

Automated preparation

One-key preparation of microsystems, no need for manual pipetting, avoiding errors caused by different personnel operations.

6 color fluorescence

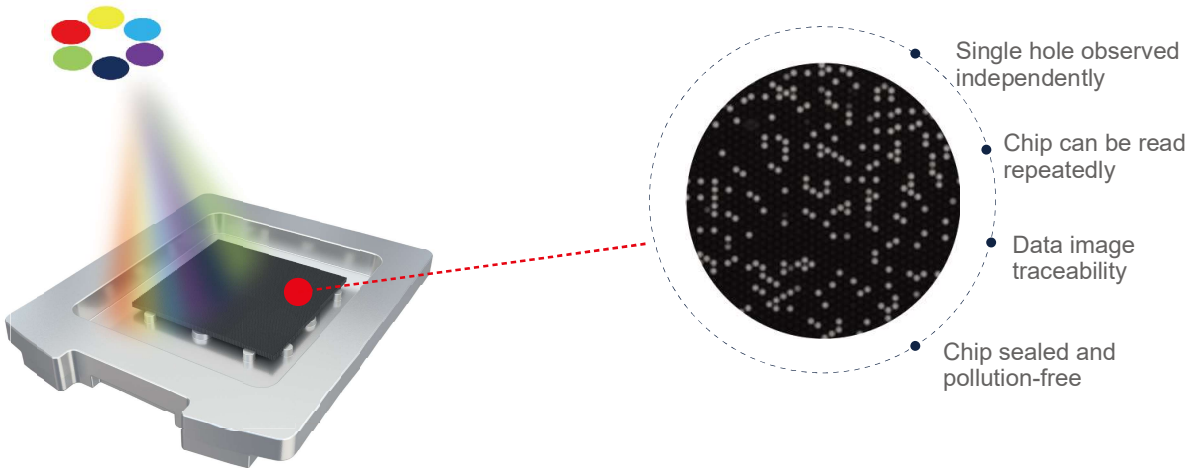
The biochip reader is equipped with a 6-color fluorescence detection system, which can realize 6 multiplex detection in a single sample, saving samples and significantly improving detection efficiency.

Various options

Chips with four unit numbers of 15k, 20k, 28k, and 50k are provided, Probe method, dye method, and one-step method dPCR Master Mix.

Open system

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

Environmental

Soil
Water

Molecular biology

Gene expression
CNV
Methylation

Medical

Liquid biopsy
NIPT
Tumor
Genetic disease

Pathogens

HIV, HBV, HCV, nCoV
Bacteria, fungus
Mycoplasma, Chlamydia

Agriculture/Food

GMO
Genetic breeding
Food safety

Bio-pharma

Process QC
Drug evaluation

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	mmecA-Methicillin	Staphylococcus	Alveolar lavage fluid,plasma
		KPC-carbapenems	Enterobacteriaceae	
		Rifampicin	Mycobacterium tuberculosis	
		VanA/B-vancomycin	Staphylococcus	

Specification

Model	AccuONE-200
Chip	Quadruple-Chip (15K/20K/28K) Quintuple-Chip (15K)
Linear range	Five orders of magnitude
Reaction volume	15~40μl
Sample effective utilization rate	>95%
Sample preparation throughput	4pcs/5pcs
Amplification throughput	20pcs/30pcs
Detection throughput	20pcs/30pcs
Detection time	2 min/pc
Detection channel	Atto425,FAM,HEX,ROX,Cy5,Cy5.5
Type of kits	Probe/Dye
Light source	6 high engery LED
Detector	High resolution CMOS sensor

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