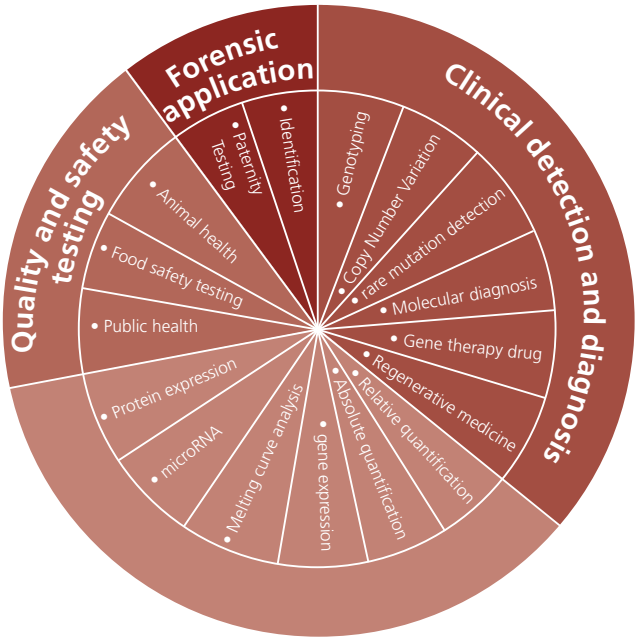
DLAB

Real-Time PCR System
Accurate 96

Real-Time PCR System

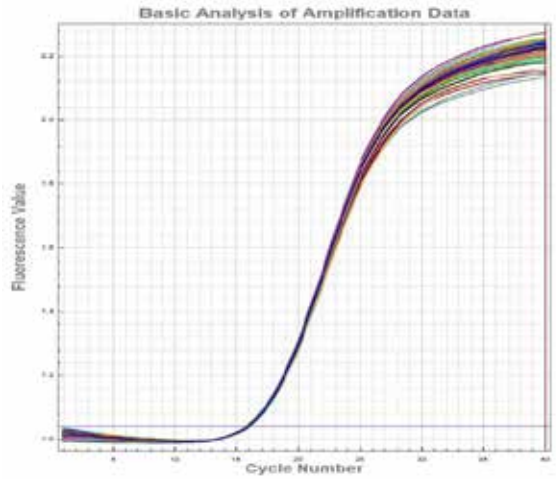
DLAB Accurate 96 is based on global vision of product design concepts and manufacturing processes. It creatively combines Fresnel lens optical signal acquisition technology, time-resolved signal separation technology and unique temperature control technology. And it reaches international advanced level in sensitivity, multi-color crosstalk, temperature uniformity and accuracy. It supports the application of all common QPCR detection modes.



Up to 6 fluorescence detection channels allowing multiplex PCR
Simultaneous detection of 5 target genes in 96 samples

Channel 6	Channel 5	Channel 4
NED™ /Cy3/ TAMRA™	ROX™ /Texas Red®	FAM™ /SYBR
VIC®/ HEX™ /TET/ JOE™	Cy5®/Quasar® 670	FAM™ /SYBR
Channel 3	Channel 2	Channel 1

FAM,JOE,VIC,HEX,NED,TAMRA and ROX are trademarks of Life Technologies Corporation and its subsidiaries. VIC and Texas Red are registered trademarks of Life Technologies Corporation and its subsidiaries. Cy5 is a registered trademark of GE Healthcare Bio-Sciences Corp. Quasar are registered trademarks of Biosearch Technologies, Inc.



Simultaneous scanning of the six-channel shows that the standard deviation of the Ct value of the FAM channel is <0.07. No fluorescence signal in other channels.

Classic Examples
——Swine fever virus ASFV detection

QPCR was used to detect the swine fever virus DNA in vitro for clinical diagnosis of suspected diseased pigs.

Kit: Swine fever virus (ASFV) nucleic acid detection kit (PCR probe assay) 、DNA extraction kit (Spin column method)

Method: 5 mL of blood was extract from a live pig syringe to be examined. DNA was extracted by DNA extraction kit. According to the ASFV detection kit operation method, the extracted DNA, the positive control substance, and the negative control substance is separately added to the PCR reaction solution and the enzyme. Then the mixture is centrifuged and tested on real-time qPCR. The reporter and quencher of the TaqMan probe is FAM and TAMRA.

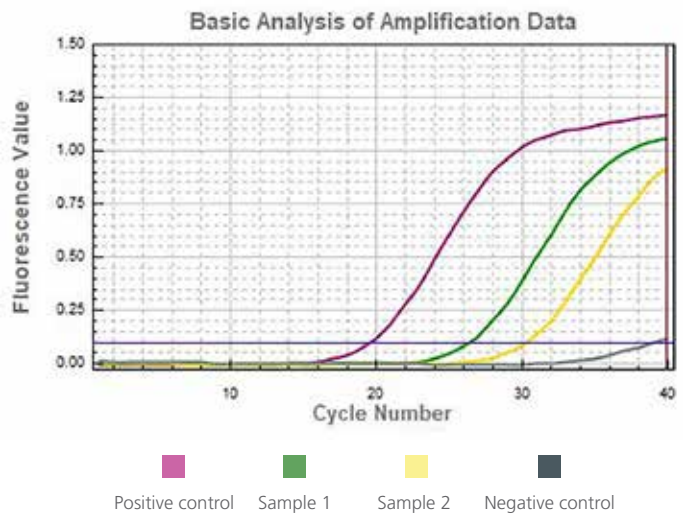
Judgment basis: Positive: Ct≤35, and the amplification curve has a significant exponential growth curve.Negative: Ct＞37, or no significant amplification of the curve. Recommended retest: 35＜Ct≤37.

Data analysis: The Ct value of the positive control is 20, and the negative control product has no obvious amplification curve. The Ct values of the sample 1 and 2 to be tested is 26 and 30 respectively. According to the judgment basis of the kit, the samples to be tested are ASFV positive.

Program:

Step	Temperature	Time	Cycle	End point
1	95°C	10min	1	No
2	94°C	15sec	40	No
	55°C	30sec		Yes

Amplification curve:



Technical Parameters

Temperature control system	
Sample capacity	0.1ml PCR tubes×96, 8×12 PCR plate or 96 well plate ×1
Reaction volume	10-50 μl
Thermal cycle technology	Peltier
Max. Heating/Cooling rate	6.0° C/s
Heating temperature range	4 – 100 °C
Temperature accuracy	± 0.2°C
Temperature uniformity	±0.2°C @60°C , ±0.2°C @95°C
Temperature gradient setting range	30–100°C
Temperature gradient difference setting range	1 – 36°C

Detection system	
Excitation light source	4/6 monochrome high efficiency LEDs
Detection device	PMT
Detection mode	Time-resolved signal separating technology
Excitation/detection wavelength range	455-650nm/510-715nm
Fluorescent channels	4/6 channels
Supported dye	FAM/SYBR Green, VIC/JOE/HEX/TET, ABY/NED/TAMRA/Cy3, JUN, ROX/ Texas Red, Mustang Purple, Cy5/LIZ
Sensitivity	Single copy gene
Resolution	1.33 folds copy number difference can be distinguished in single-plex qPCR
Dynamic range	10 orders of magnitude copies