

The logo for abCyclerQ, featuring the text "abCyclerQ" in a bold, sans-serif font. The "ab" is in dark grey, "Cycler" is in green, and the "Q" is in black. The background of the slide shows a faint, stylized image of a person in a white lab coat and a green safety vest, holding a device.

The *abCyclerQ* is a powerful tool used to perform rapid and precise real-time polymerase chain reaction (RT-PCR). This six-channel (5 fluorescence colours and 1 FRET channel) real-time PCR instrument combines advanced optical technology with precise temperature control to deliver reliable detection for both single and multiplex real-time PCR assays.

Your *preferred*
choice for qPCR



Easy-to-use software

10 inch
touch screen
monitor

LED excitation
source and
PD detection

Outstanding
& powerful
data analysis
function

Special
Temperature
Protocol
Advantage

7 seconds
top optical
scanning

abCyclerQ

TECHNICAL SPECIFICATION

Model	abCyclerQ
Catalogue no.	800700
Sample capacity	12 x 0.2ml 8-tube qPCR strips/ 96 x 0.2ml qPCR tubes/ 1 qPCR plate 8x12 (No Skirt)
Tube type	Clear, White, Frosted
Thermoblock	Aluminium
Reaction volume	Up to 100µl
Temperature range	0– 100°C
Heating technology of the block	Peltier element
Max. heating rate	6.1°C/sec
Average heating rate	4.5°C/sec
Max. cooling rate	5.0°C/sec
Average cooling rate	2.8°C/sec
Temperature accuracy	± 0.2°C
Block uniformity	
20– 72°C	± 0.2°C
95°C	± 0.3°C
Gradient range	1– 40°C
Gradient block	12 columns
Gradient temperature range	35– 100°C
Lid temp. range (Heated Lid)	Enabled: 40– 110°C; Disabled: Room temperature to 110°C
Special temperature protocol	Standard mode, Gradient PCR mode, Long PCR mode, Touchdown PCR mode
Sample linearity	$R^2 \geq 0.998$ or $r \geq 0.999 $
Sample repeatability	Ct value, CV ≤ 0.5%
Sample dynamic range	1– 10 ¹⁰ copies
Excitation source	6 filtered LED
Detection	Photodiodes
Detection position	Excitation and detection from the top
Detection method	6 channels scanning at the same time, no edge effect
Scan time	7 seconds for 96 wells for all channels
Channels & wavelength	• 465/ 510 (FAM, SYBR Green I, SYTO9, EvaGreen, LCGreen) • 527/ 563 (HEX, VIC, TET, JOE) • 580/ 616 (ROX, Texas Red) • 632/ 664 (Cy5) • 680/ 730 (Alexa Fluor680) • 465/ 616 (FRET)
Probe	TaqMan probe, Molecular beacon probe, Scorpion probe, FRET
Multiplexing	Up to 5 targets per well
Fluorescence linearity	$R^2 > 0.980$ or $r > 0.990 $
Data analysis modes	Qualitative analysis, Absolute quantification, Relative quantification, Genotyping, Endpoint analysis, High resolution melt analysis, Melt curve analysis
Control modes	• 10.4" touch screen • Direct PC control/ Standalone system • WLAN control (One PC can connect up to 10 units)
Sample loading	Touch screen command on loading platform
Data storage	Upload & download via USB; save up to 1000 run files in internal memory storage
Power failure protection	Continue with experiments after power supply resumes
Customize report	Default template available with customizable options
Shipping lock	Automatically detect shipping lock upon start up
LIS connection	CSV, Excel, TXT format data output, open port for LIS connection
PC operating system	Win 7, Win 10
Communication port	1 ethernet and 3 USB
Dimension (W x D x H)	355mm x 480mm x 485mm
Weight	30kg
Power usage	AC 100– 240V, 50/ 60Hz
Power consumption	900VA
Working environment	Temperature: 10– 30°C; Humidity: 20– 85%

For more information,
please call (65) 6778 6822 or email sales@aitbiotech.com