specifications

CFX96 Touch Deep Well™ Real-Time PCR Detection System

Advancing qPCR Together

The CFX96 Touch deep well real-time PCR detection system offers industry-leading performance for large-volume reactions. Solid-state optical components provide sensitive detection for up to five targets with precise quantification and target discrimination. Easily start a run and monitor its progress on the integrated touch screen for a truly stand-alone experience. CFX Manager™ software provides intuitive experiment setup and data analysis modules, including gene expression by normalized expression (ΔΔCq) using multiple reference genes and individual reaction efficiencies in the calculations, for all levels of users.

Specifications

C1000 Touch™ Thermal Cycler with 96–Deep Well Reaction Module			
Maximum ramp rate	2.5°C/sec	Temperature range	0–100°C
Average ramp rate	2°C/sec	Temperature accuracy	±0.2°C of programmed target at 90°C
Heating and cooling method	Peltier	Temperature uniformity	±0.4°C well-to-well within 10 sec of arrival at 90°C
Lid	Heats up to 105°C		
Gradient			
Operational range	30–100°C		
Programmable span	1–24°C		
Optical Detection			
Excitation	6 filtered LEDs	Dynamic range	10 orders of magnitude
Detection	6 filtered photodiodes	Scan time	
Range of excitation/ emission wavelengths	450–730 nm	All channels	12 sec
		Single channel fast scan	3 sec
Sensitivity	Detects 1 copy of target sequence in human genomic DNA		
Software			
Operating systems	Windows XP, Windows 7	Data export	Save, copy, and print all graphs and spreadsheets from right-click menu
Multiplex analysis	Up to 5 targets per well		Export specified data in multiple formats
Data analysis modes	PCR quantification with standard curve		Copy and paste into Microsoft Excel, Word, or PowerPoint file
	Melt curve analysis		Customizable reports containing run settings, data graphs, and spreadsheets can be directly printed or saved as PDFs
	Gene expression analysis by relative quantity (ΔCq) or normalized expression (ΔΔCq) with multiple reference genes and individual reaction efficiencies		
	Data analysis options include bar chart, clustergram, scatter plot, volcano plot, and heat map		
	Multiple file gene expression analysis		
	Allelic discrimination		
	End-point analysis		
System			
Licensed for real-time PCR	Yes	Electrical approvals	IEC, CE
Sample capacity	96 wells	Dimensions (W x D x H)	33 x 46 x 36 cm (13 x 18 x 14")
Sample size	10–125 µl	Weight	21 kg (47 lb)
Communications	USB 2.0		

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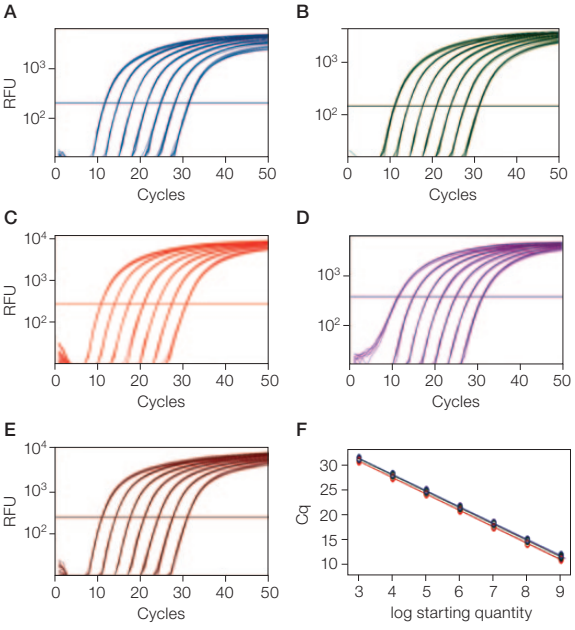
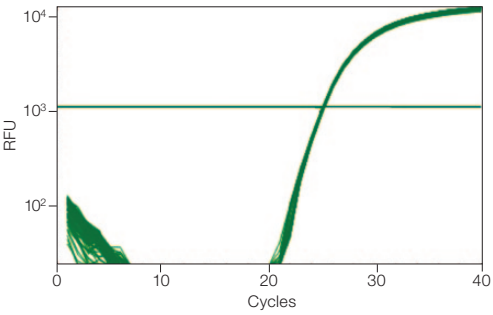
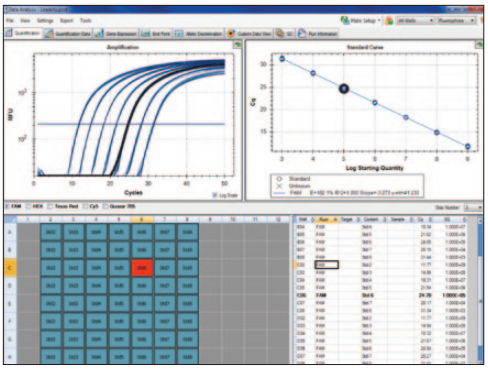


Linearity of five-target multiplex detection. A–E, fluorescence data from a series of tenfold dilutions of plasmid DNA (10^9–10^3 copies) amplified using reporter dyes to monitor five targets in a 75 µl reaction volume: ■, FAM/cyclophilin; ■, HEX/*GAPDH*; ■, Texas Red/actin; ■, Cy5/tubulin; ■, Quasar 705/IL-1β; **F**, standard curves generated from data in A–E, reaction efficiencies range from 100 to 102%. Cq, quantification cycle; RFU, relative fluorescence units.



Excellent uniformity. IL-1β plasmid template was diluted to 10^5 copies/reaction and amplified in the presence of a FAM-labeled detection probe with iQ™ supermix. Graph shows 96 replicates of 100 µl reactions. Average Cq = 25.14 ± 0.10. RFU, relative fluorescence units.



CFX Manager software data analysis module.

Ordering Information

Catalog #	Description
185-4096	**CFX96 Touch Deep Well Real-Time PCR Detection System**, includes C1000 Touch thermal cycler chassis, CFX96 Deep Well™ optical reaction module, CFX Manager software, license for qbase^{PLUS} software, communication cable, reagents, consumables
185-4095	**CFX96 Touch Deep Well Real-Time PCR Detection System**, includes C1000 Touch thermal cycler chassis, CFX96 Deep Well optical reaction module, CFX Manager software, license for qbase^{PLUS} software, communication cable
184-4096	**CFX96 Deep Well Optical Reaction Module**, for use with C1000 Touch thermal cycler chassis, includes CFX Manager software, license for qbase^{PLUS} software, communication cable, reagents, consumables
184-5008	**CFX Manager Software, Chinese Edition**, includes 3 user licenses, installation CD, 3 HASP HL keys
184-5028	**CFX Manager Software, Russian Edition**, includes 3 user licenses, installation CD, 3 HASP HL keys
184-5025	**Precision Melt Analysis™ Software**, includes 2 user licenses, installation CD, 2 HASP HL keys, melt calibration kit
170-8841	**iScript™ Reverse Transcription Supermix for RT-qPCR**, 100 x 20 µl reactions, includes 400 µl 5x iScript RT supermix and iScript RT supermix no-RT control
172-5260	**SsoAdvanced™ SYBR® Green Supermix**, 2 ml (2 x 1 ml), 200 x 20 µl reactions, 2x real-time PCR mix, contains dNTPs, Sso7d fusion polymerase, $MgCl_2$, SYBR® Green I, stabilizers
172-5230	**SsoFast™ Probes Supermix**, 2 ml (2 x 1 ml), 200 x 20 µl reactions, 2x real-time PCR mix, contains dNTPs, Sso7d fusion polymerase, $MgCl_2$, stabilizers
HSP-9601	**Hard-Shell® Low-Profile 96-Well Skirted PCR Plates**, white shell, clear well, 50
MSB-1001	**Microseal® 'B' Adhesive Seals**, optically clear, 100 seals

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