

Anexa 13Amplificator PCR

Veriti™ Dx 96-Well Thermal Cycler, ThermoFisher, Singapore

Parametri solicitati	Parametri oferiti
An productie: 2021-2022 Interfața cu utilizatorul: Ecran LCD/LED tactil $\geq 5''$ Capacitatea blocului: 96 tuburi x 0,2ml(tuburi PCR standard) sau 1 placa PCR 8x12. Domeniul de control al temperaturii: 4-99°C. Mod control temperatura: Control pe blocul de încălzire sau pe tuburi(ambele disponibile). Tehnologie de încălzire: Elemente Peltier, 6 sau mai multe elemente/zona. Gradient: Uni sau bi-direcțional Diapazon gradient:1-20°C. Domeniul de temperatura al gradientului: 30-99°C. Capac cu protecție termică și protecție evaporare. Viteza de răcire/încălzire bloc: $>3^{\circ}\text{C}/\text{sec}$. Omogenitatea temperaturii blocului: $\pm 0,5^{\circ}\text{C}$. Acuratetea temperaturii blocului: $\pm 0,5^{\circ}\text{C}$. Posibilitate importare și exportare programe de lucru. Interfețe: USB Alimentare: 220-240V, 50HZ Livrat cu UPS pentru 10 minute de lucru. Accesorii livrate: Dozatoare variabile: 0.1 - 2 μl - 2 buc. 0.5 - 10 μl - 2 buc., 2 - 20 μl - 2 buc, 10 - 100 μl - 2 buc. Cerințe de certificare: Certificat CE sau declarație de conformitate CE cu anexele corespunzătoare pentru produsele oferite, valabil, copie confirmată prin semnatura și ștampila participantului. Declarație de la Ofertant – confirmată prin semnatura și ștampila, în care să certifice termenul de garanție pentru echipament și accesorii nu mai mic de 36 luni din momentul instalării/darii în exploatare a bunului. Instalarea, darea în exploatare, de către participantul câștigător-obligatoriu. Training pentru utilizatori la instalare și la solicitare-obligatoriu. Documente confirmative: Manual de service si manual de utilizare în conformitate cu LEGEA Nr. 102 cu privire la dispozitivele medicale din 09.06.2017, capitolul 4 Articolul 14. P. 3. //Ghid rapid al utilizatorului (max. 4 pagini A4), în limba de stat-obligatoriu.	An productie: 2021-2022 Interfața cu utilizatorul: Ecran LCD tactil 6.5'' Capacitatea blocului: 96 tuburi x 0,2ml(tuburi PCR standard) sau 1 placa PCR 8x12. Domeniul de control al temperaturii: 0-100°C. Mod control temperatura: Control pe blocul de încălzire sau pe tuburi(ambele disponibile). Tehnologie de încălzire: Elemente Peltier, 6 elemente/zona. Gradient: Uni directional Diapazon gradient:1-25°C, 5C dirența între blocurile vecine. Domeniul de temperatura al gradientului: 30-99°C. Capac cu protecție termică și protecție evaporare. Viteza de răcire/încălzire bloc: $3.9^{\circ}\text{C}/\text{sec}$. Omogenitatea temperaturii blocului: $\pm 0,5^{\circ}\text{C}$. Acuratetea temperaturii blocului: $\pm 0,25^{\circ}\text{C}$. Posibilitate importare și exportare programe de lucru. Interfețe: USB Alimentare: 220-240V, 50HZ Livrat cu UPS pentru 10 minute de lucru. Accesorii livrate: Dozatoare variabile: 0.1 - 2 μl - 2 buc. 0.5 - 10 μl - 2 buc., 2 - 20 μl - 2 buc, 10 - 100 μl - 2 buc. Cerințe de certificare: declarație de conformitate CE cu anexele corespunzătoare pentru produsele oferite, valabil, copie confirmată prin semnatura și ștampila participantului. Declarație de la Ofertant – confirmată prin semnatura și ștampila, în care să certifice termenul de garanție pentru echipament și accesorii nu mai mic de 36 luni din momentul instalării/darii în exploatare a bunului. Instalarea, darea în exploatare, de către participantul câștigător-obligatoriu. Training pentru utilizatori la instalare și la solicitare-obligatoriu. Documente confirmative: Manual de service si manual de utilizare în conformitate cu LEGEA Nr. 102 cu privire la dispozitivele medicale din 09.06.2017, capitolul 4 Articolul 14. P. 3. //Ghid rapid al utilizatorului (max. 4 pagini A4), în limba de stat-obligatoriu.

Certificate of Conformance

Applied Biosystems Veriti™ Dx Thermal Cycler

REF	4452300
SN	299123216
	2022-05-04

Life Technologies Holdings Pte Ltd, hereby certify that the product being shipped with above reference number (REF) and serial number (SN) meets the following conditions:

1. The product has been tested and inspected in accordance with the requirements of Life Technologies Holdings Pte Ltd.
2. The integrity of this quality system is routinely audited and certified as meeting all the applicable requirements of ISO9001 and ISO13485 standards.

ISO13485
REGISTERED FACILITY



For In Vitro Diagnostic Use



Life Technologies Holdings Pte Ltd
Block 33 Marsiling Industrial Estate Road 3
#07-06 Singapore 739256

SHYAM  20 MAY 2022

Quality Assurance
(Name, Signature & Date)



Veriti Dx Thermal Cycler

Enabling precise, consistent nucleic acid amplification for diagnostic applications



The Veriti Dx Thermal Cycler offers versatility, flexibility, and confidence for your diagnostic development

The Applied Biosystems™ Veriti™ Dx system offers:

- More precise control, through VeriFlex™ Block technology
- Easy-to-use color touch screen for rapid programming and setup
- Flexible management of your protocols
- Simple data transfer by USB drive
- An integral, verified component of Sanger and next-generation sequencing (NGS) workflows*

More precise control

- Each block can be set with up to 6 specific temperatures, which is ideal for precise control over PCR optimization
- VeriFlex Blocks maintain their thermal characteristics between optimizing and isothermal conditions, eliminating the need for further optimization steps
- VeriFlex Blocks have an additional benefit over gradient thermal cyclers: since the Peltier blocks are separate, it's possible to run up to 6 different temperatures in the same protocol step (Figure 1)
- Incubate samples at up to 6 different temperatures simultaneously for enzyme activation studies, restriction digests, or sequencing library preps

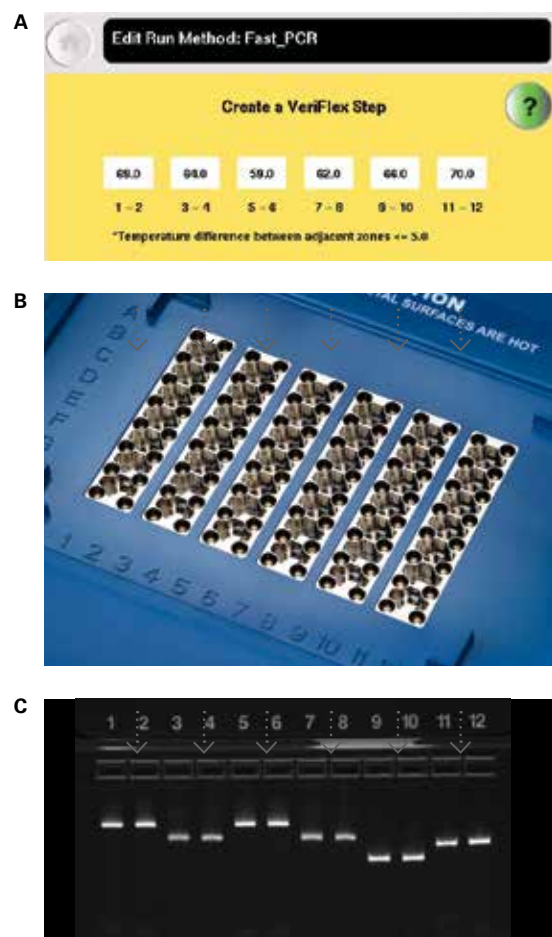


Figure 1. VeriFlex Block technology on the Veriti Dx 96-Well Thermal Cycler. (A) Each VeriFlex Block allows you to set annealing temperatures for 6 different primer sets. (B) Each VeriFlex Block contains 6 individual Peltier blocks. (C) PCR results for 6 assays (6 primer sets, 6 annealing temperatures) in a single run.

* The Veriti Dx Thermal Cycler is a component of the Applied Biosystems™ 3500 Dx Series Genetic Analyzer workflow, for use with SeCore™ HLA typing kits. The Veriti Dx Thermal Cycler is also a component of the Ion PGM™ Dx system workflow.

Easy-to-use color touch screen

The powerful yet simple-to-operate user interface on the Veriti Dx system is accessed through the 6.5 inch (16.5 cm) color touch screen. The large screen allows for easy viewing of your temperature profiles.

Flexible management of your protocols

The Veriti Dx system provides two options for simplified method navigation. You can program your own method (Figure 2) and create a shortcut to your protocol, or save the method to the instrument or a USB drive.

Simple data transfer by USB drive

A convenient USB port is built into all Veriti Dx systems to simplify data transfer and product updates.

- **Portability**—transfer methods between Veriti Dx systems via USB devices
- **Security**—store your most important methods on any USB storage device
- **Storage**—store an unlimited number of methods using USB storage devices

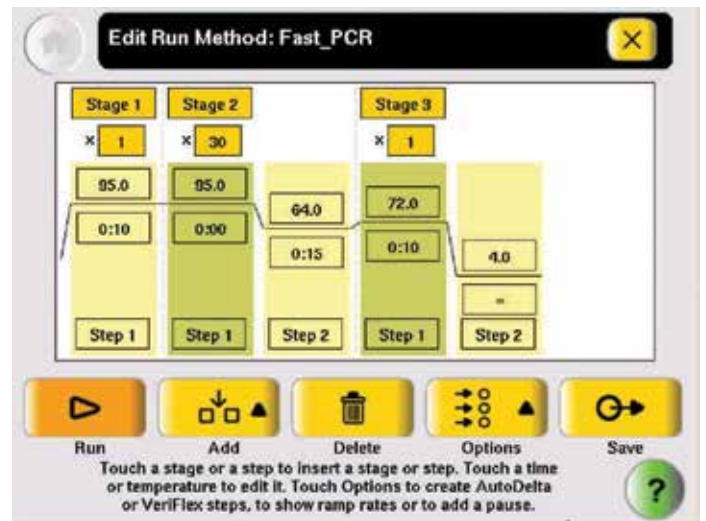


Figure 2. Edit Run screen on the Veriti Dx Thermal Cycler. Simply touch a step and enter new values using the keypad (not shown) to create new methods or alter existing ones.

A Veriti Dx system to fit your needs

The Veriti Dx system is available in three block formats to suit your clinical needs:

- Standard 96-well
- Fast 96-well
- Standard 384-well

Refer to the Veriti Dx system specifications on page 4 for a comparison of the choices in block formats.

Veriti Dx Thermal Cycler specifications*

	Veriti Dx 96-Well Fast Thermal Cycler	Veriti Dx 96-Well Thermal Cycler	Veriti Dx 384-Well Thermal Cycler
Block format	0.1 mL alloy	0.2 mL alloy	0.02 mL aluminum
Features	Fast 0.1 mL format and sample block	Standard 0.2 mL format and sample block	Standard 0.02 mL format and sample block
Maximum block ramp rate	5.00°C/sec	3.9°C/sec	3.7°C/sec
Maximum sample ramp rate	4.25°C/sec	3.35°C/sec	3.1°C/sec
Enabled to run Fast chemistry	Yes	Yes	No
Temperature accuracy	±0.25°C (35°C–99.9°C)		
Temperature range	0–100.0°C		
Temperature uniformity	<0.5°C (20 sec after reaching 95°C)		
Dimensions (H x W x D)	9.6 inch (24.5 cm) x 9.3 inch (23.7 cm) x 19.1 inch (48.5 cm)		
Weight	11.4 kg (25 lb)		
PCR volume range	10–30 µL	10–80 µL	5–20 µL
Instrument memory	USB and on-board		
Display interface	6.5 inch (16.5 cm) VGA 32K color with touch screen		
T _m calculator	Menu-driven through touch screen		
Power	100–240 V, 50–60 Hz, max. 800 VA		
VeriFlex Blocks range	25°C (5°C zone-to-zone)	25°C (5°C zone-to-zone)	NA
Cat. No.	4452299	4452300	4452301

* The Veriti Dx Thermal Cycler can be used to amplify human nucleic acid samples for diagnostic applications. The Veriti Dx Thermal Cycler is to be used only by operators trained in laboratory techniques and procedures. The customer is responsible for validation of assays and compliance with regulatory requirements that pertain to their procedures and uses of the instrument.

For more information about the Veriti Dx system for use in diagnostic applications, go to thermofisher.com/veritidx

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Veriti Dx Thermal Cycler

Easy-to-program, robust thermal cycling

Key features

- Applied Biosystems™ VeriFlex™ Blocks for precise temperature control and superior optimization
- Intuitive color touchscreen interface
- Easy networking and remote access options
- For *in vitro* diagnostic use*



	Veriti™ Dx 96-Well Fast Thermal Cycler	Veriti™ Dx 96-Well Thermal Cycler	Veriti™ Dx 384-Well Thermal Cycler
Block format	0.1 mL alloy	0.2 mL alloy	0.02 mL aluminum
Features	Fast 0.1 mL format and sample block	Standard 0.2 mL format and sample block	Standard 0.02 mL format and sample block
Max. block ramp rate	5.0°C/sec	3.9°C/sec	3.7°C/sec
Max. sample ramp rate	4.25°C/sec	3.35°C/sec	3.1°C/sec
Enabled to run Fast chemistry	Yes	Yes	No
Temperature accuracy	±0.25°C (35.0°C–99.9°C)		
Temperature range	0–100.0°C		
Temperature uniformity	<0.5°C (20 sec after reaching 95.0°C)		
Dimensions (H x W x D)	24.5 x 23.7 x 48.5 cm (9.6 x 9.3 x 19.1 in.)		
Weight	11.4 kg (25 lb)		
PCR volume range	10–30 µL	10–100 µL	5–20 µL
Instrument memory	USB and on-board		
Display interface	16.5 cm (6.5 in.) VGA 32K color with touchscreen		
T _m calculator	Menu-driven through touchscreen		
Power	100–240 V, 50–60 Hz, max. 800 VA		
VeriFlex Blocks range	25.0°C (5.0°C zone-to-zone)	25.0°C (5.0°C zone-to-zone)	NA
Cat. No.	4452299	4452300	4452301

* The Veriti Dx Thermal Cycler amplifies human nucleic acid samples for diagnostic applications. The Veriti Dx Thermal Cycler is to be used only by operators trained in laboratory techniques and procedures. The customer is responsible for validation of assays and compliance with regulatory requirements that pertain to their procedures and uses of the instrument.



Find out more at thermofisher.com/veritidx

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For In Vitro Diagnostic Use. The Veriti Dx Thermal Cycler is available in the US and other selected countries globally. Please check with your Thermo Fisher Scientific representative for availability. © 2020 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **COL33387 0120**