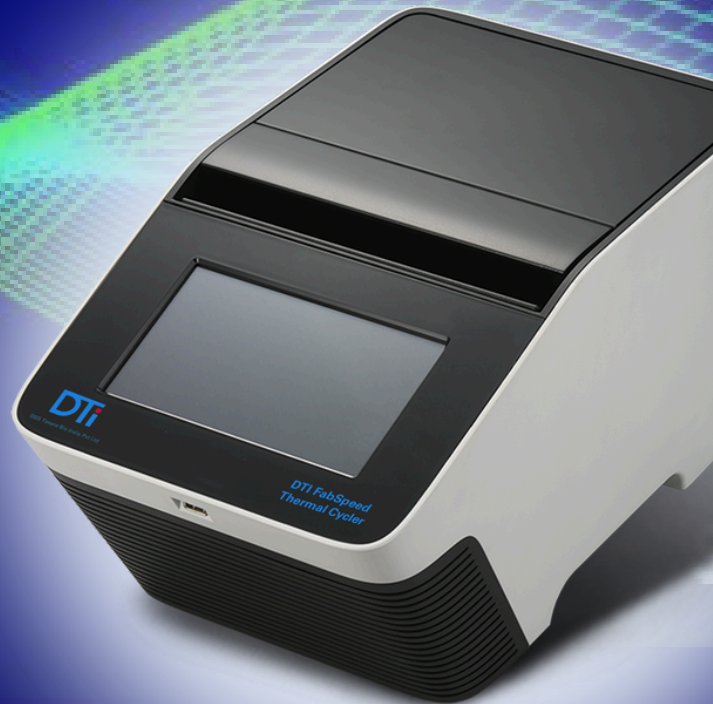


DSS Takara Bio India Pvt. Ltd.

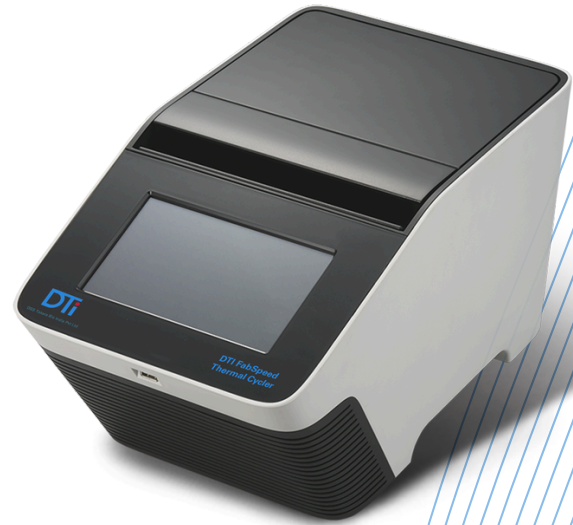
Empower your PCR Amplification

DTI FabSpeed Thermal Cycler



Enhancing PCR Efficiency and Accuracy

DTI FabSpeed thermal cycler is designed specifically to enhance PCR efficiency and accuracy. It is equipped with a 7" sensitive touchscreen and user-friendly graphic interface, making operations highly intuitive. With flexible ramp rate and gradient temperature control, it greatly optimizes PCR accuracy.



Outstanding Performance



Flexible Ramp Rate Control

from 0.1 - 5.5 °C/sec to meet the need of different experiment requirements.



Fully Adjustable Lid Temperature

can be set between 35 - 120 °C. Adjustable Lid temperature is very key feature some NGS experiments.



Gradient Optimization

range of 1 - 30 °C enables optimal experimental conditions in a single PCR run.



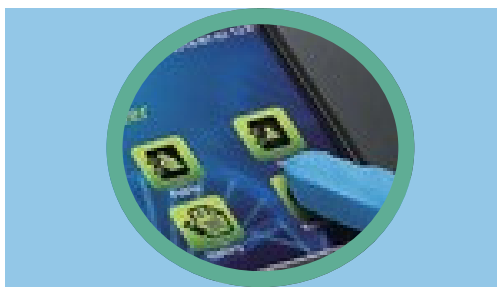
Software tools

Tm calculator, Master mix calculator, Copy number Converter

Intuitive Operation Experience

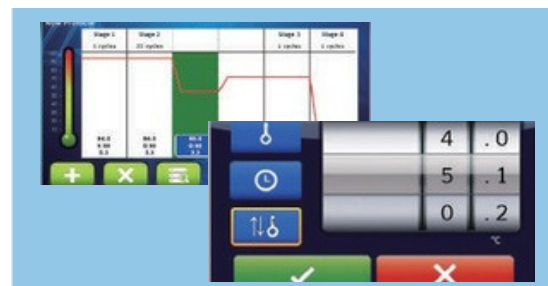
Easy to Control

The sensitive 7" capacitive touchscreen enables easy operation even with laboratory gloves.



User-Friendly Interface

The graphic interface is easy to use, making the adjustment of experiment parameters such as temperature, time and cycle quick and simple.



Specifications

Sample Block

96 Well, Gradient Block

Compatible with regular profile or low profile 0.2 ml PCR tube, strip, non- skirted, semi-skirted and full-skirted 96-well plate

Block Temperature

Block Temperature Range	4.0 - 100 °C
Max. Heating / Cooling Rate	5.5/3.3°C/sec
Average Heating/Cooling Rate	4.1/2.4°C/sec
Temperature Accuracy	+/- 0.3 °C
Uniformity	+/- 0.3 °C
Adjustable Ramp Rate	Yes, 0.1 - 5.5°C/sec

Gradient Temperature

Gradient Direction	Horizontal across the block
Gradient Temperature Range	30 - 100 °C
Gradient Temperature Difference	Max. span 30 °C

Heated Lid

Temperature Setting Range	35 - 120 °C or off +/- 1.0 °C
Temperature Accuracy	35 - 120 °C or off +/- 1.0 °C

Software

Portability of Protocols	Save and transfer to computer or DTI FabSpeed via USB flash drive
Stored Program No.	> 4000 sets
Registered User Folder No.	100 sets
User Folder Password Protection	Yes
Run Status Report	Yes, HTML output and transfer via USB flash drive
Real-time Temp. Profile Export	Yes, CSV output and transfer via USB flash drive
Tools	Tm calculator, Copy number convertor, Master mix preparation calculator

General

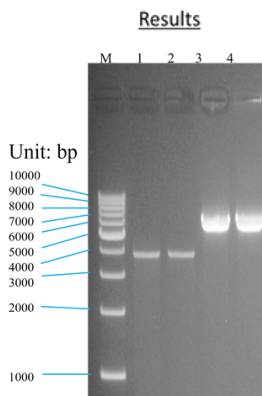
Display Data Port	7" color LCD with capacitive touch panel 1
Data Ports	1 USB A front port for USB flash drive
Heated Lid	35 - 120°C or off
Auto restart after power outage	Yes
Footprint Dimensions (H x W x D)	225 mm x 245 mm x 415 mm
Weight	9.5 kg
Power Supply	VAC 100-240, 50/60 Hz, 750 W
Standard	CE, RoHS

Enhanced Speed to save precious time

Amplification of Myc gene (4Kb) of Human Genomic DNA is performed using EmeraldAmp GT PCR master mix (Takara brand cat# RR310A). Amplification of IGF2R gene (6Kb) of Human Genomic DNA is performed using EmeraldAmp Max PCR master mix (Takara brand cat# RR320A). The thermal cycling protocol used was as below:

PCR Condition		
98°C	10sec	} 30 cycles
60°C	30sec	
72°C	4min	

PCR products are compared using Agarose gel electrophoresis using 1 kb DNA ladder(Takara brand cat# 3426A)



Lane	Sample	Time Taken
M	1 KB DNA marker (Takara cat# 3426A)	
1	PCR product using DTI FabSpeed thermal cycler	02:33:39
2	PCR product using Brand T	03:04:00
3	PCR product using DTI FabSpeed thermal cycler	03:33:39
4	PCR product using Brand T	04:04:00

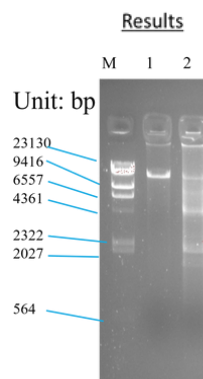
Result: DTI FabSpeed thermal cycler can perform PCR amplification in shorter time as compared to Brand T

Advanced Efficiency even for tough samples

Amplification of β-globin gene (20Kb) of Human Genomic DNA is performed using PrimeStar GXL DNA premix (Takara brand cat# R051). The thermal cycling protocol used was as below:

PCR Condition		
98°C	10sec	} 30 cycles
68°C	10min	

PCR products are compared using Agarose gel electrophoresis using Takara λ Hind III digest DNA Marker



Lane	Sample	Time Taken
M	λ Hind III digest DNA Marker	
1	PCR product using DTI FabSpeed thermal cycler	05:15:53
2	PCR product using Brand T	05:39:00

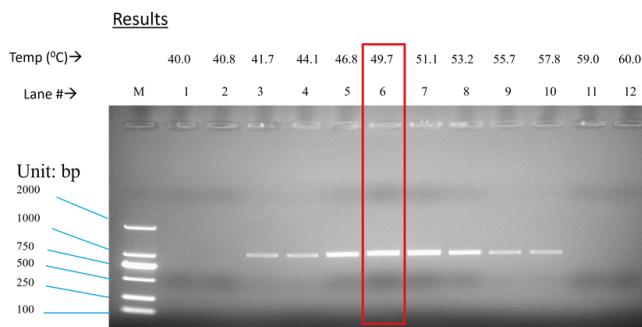
Result: Amplification of Long DNA fragment that could be challenging, can be efficiently performed using DTI FabSpeed Thermal cycler owing to its high Ramp rate feature. The thermal cycler is compatible with DNA polymerases capable of high-speed PCR including PrimeSTAR GXL DNA Polymerase which has been used in above assay

Improved Optimization for Better Performance

A Gradient reaction is set up for amplification of 16S gene (1kb) from bacterial DNA using Takara Taq (Cat# R001A). The thermal cycling protocol used was as below:

PCR Condition		
94°C	1min	} 30 cycles
94°C	1min	
40°C-60°C	1min	
72°C	1.5min	
72°C	2min	

The PCR product is analyzed in agarose gel using DL 2000 DNA marker (Takara brand Cat# 3427A).



Result: Gradient feature helps in determining optimal annealing temperature for the PCR in single run

Ordering Information

TCST-9622

DTI FabSpeed Thermal Cycler

Enquire for Pricing

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