

GeneAmp® PCR System 2700

- Fixed sample block
- 96-well format
- Simple, intuitive graphical interface
- Small footprint
- Reliable yet cost-efficient

Introduction

The discovery more than two decades ago of the polymerase chain reaction (PCR) process is widely recognized as one of the most important recent developments in life science research. Today, the use of PCR for nucleic acid amplification is an integral part of the modern life science research laboratory.

Applied Biosystems, through its GeneAmp® family of thermal cyclers, has long been in the forefront of developing and refining innovative instruments, reagents, and software to ensure successful, reproducible PCR amplification.

The latest addition to our suite of leading edge thermal cyclers is the personal-sized GeneAmp® PCR System 2700, an ideal instrument for both basic PCR and cycle sequencing applications. It represents the culmination of several years of intensive research into thermal cycler technology and design.

Quality with Economy

The GeneAmp 2700 system provides the same reliability and high performance found in the industry standard GeneAmp® PCR System 9700, yet it is one of the most economical thermal cyclers available.

Innovative Design

Designed for basic PCR and cycle sequencing research, the system 2700 is the only thermal cycler that offers a fixed sample block of 96 wells, and a graphical interface that is easy to program.

Ideal for Tight Spaces

Recognizing that bench space is at a premium in most laboratories, Applied Biosystems engineered the 2700 thermal cycler with an exceptionally small footprint to fit almost anywhere. Compact Peltier heating and cooling devices allow us to include a wide range of features in an instrument measuring 21 cm x 36 cm.

Graphical User Interface

A graphical user interface makes the 2700 thermal cycler simple, intuitive, and easy to program. Even the most inexperienced laboratory assistant will need only minimal instruction to operate the instrument.

Nonstandard Software Features

In addition to standard software features, the system 2700 also includes a melting point (T_m) calculator that calculates the primer annealing temperature based on nearest-neighbor analysis. And in the event of electrical power interruption, the instrument recovers lost data.

Reliable and Cost-Efficient

We incorporated many features from the system 9700 instrument into the 2700 thermal cycler. These innovations enabled us to produce a system with performance specifications similar to those of our GeneAmp® PCR



The GeneAmp® PCR System 2700

System 9700. And the new instrument is just as reliable. The major difference you will notice is its smaller size and lower price.

PCR Disposables

The GeneAmp PCR System 2700 uses the same MicroAmp® plates, tubes, caps, full-plate cover, and base as our PCR System 9600 and 9700 instruments.

Online Information

For online information about the GeneAmp PCR System 2700, visit us on the Web at: www.appliedbiosystems.com/2700.



Figure 1. MicroAmp® Disposables

Specifications

Control keys

5 soft keys; 4 arrow keys;
Stop/Enter/Clear; full numeric keypad

Memory

Stores 100 methods (method =
pre-/post-PCR holds and cycles).

Display

7 x 40-character LCD displays count-
down for each temperature incubation
segment, cycles completed, and tem-
perature ramp.

Modifiable programs

Default program (pre-, post-, and 25-
cycle PCR) can be modified to accom-
modate all protocols; customized PCR
methods can be stored and protected
from unintentional overwriting.

Software functions

Fixed ramp speeds; time and temper-
ature auto-extend/auto-decrease;
programmable pauses; date; time;
auto-restart (for use after power dis-
ruption); T_m calculator; temperature
verification (for use with Temperature
Verification Kit)

User diagnostics

Verify heating/cooling rates (to avoid
over- or undershooting the desired
temperature); check display functions

Serial communication ports

One

Dimensions

Width: 21 cm (8.3 in)

Depth: 36 cm (14.2 in)

Height: 22 cm (8.7 in)

Weight: 6.1 kg (13.5 lb)

Temperature range

4.0–99.9°C

Temperature display

Displays calculated sample tempera-
tures; can be set to 0.1°C

Average heating/cooling rates

Sample: 1°C/second

Static temperature uniformity

$\pm 0.5^\circ\text{C}$, 30 seconds after clock-start
at 95°C

Temperature accuracy

$\pm 0.5^\circ\text{C}$ (range: 35–100°C)

Temperature calibration

Calibrated to standards traceable to
the National Institute of Standards
and Technology (NIST)

Heated cover

Maintains constant temperature of
105°C for oil-free operation.

Ramp time reproducibility

Reaches thermal set points within
 ± 5 seconds.

Ordering Information

Description	Part Number
GeneAmp® PCR System 2700	4322620

Worldwide Sales Offices

Applied Biosystems vast distribution
and service network, composed of
highly trained support and applications
personnel, reaches into 150 countries
on six continents. For international
office locations, please call the division
headquarters or refer to our Web site
at www.appliedbiosystems.com.

Applied Biosystems is committed to
providing the world's leading technology
and information for life scientists.
Applied Biosystems consists of
the Applied Biosystems and
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For Research Use Only.
Not for use in diagnostic procedures.

The PCR process is covered by patents
owned by Roche Molecular Systems, Inc. and
F. Hoffmann-La Roche, Ltd.

Practice of the patented polymerase chain
reaction (PCR) process requires a license.
The GeneAmp® PCR System 2700 is an
Authorized Thermal Cycler for PCR and may
be used with PCR licenses available from
Applied Biosystems. Its use with Authorized
Reagents also provides a limited PCR license
in accordance with the label rights
accompanying such reagents.

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