



the **two3**TM



The **Biomeme two3**TM (Product code 300003) is a mobile thermocycler for real-time linear probe polymerase chain reaction (PCR), isothermal and RT-PCR analysis of DNA or RNA.



Designed to bring cutting-edge laboratory technology into a field-ready, smartphone-based device, the **two3**TM is capable of multiplexed detection of six nucleic acid targets per run. Reactions prepared in Biomeme Test Kits are placed into the **two3**TM for analysis.

Technical Characteristics

Characteristic	Specification
Sample capacity	3 wells
Recommended sample volume per well	20-40 μ L
Sampling channels	2
Suggested fluorophores	FAM/SYBR Cy5/ATTO647N
Sampling channel 1 Excitation wavelength Emission wavelength	470 nm +/- 20 nm 540 nm +/- 40 nm
Sampling channel 2 Excitation wavelength Emission wavelength	627 nm +/- 15 nm 657 nm +/- 20 nm
Liquid heating/cooling speed @ 25 C ambient	10.9 C/sec heating, 2.8 C/sec cooling
Temperature accuracy @ 25 C ambient	+/- 0.25 C
Temperature uniformity @ 25 C ambient	+/- 0.1 C

Characteristic	Specification
Dimensions	7.7 cm x 7.7 cm x 17.8 cm (3.03 in x 3.03 in x 7.01 in)
Weight	559 g (19.7 oz), including iPhone and battery
Power	AC/DC wall adapter or on-board battery
Battery life	~6 40-cycle DNA runs
Battery charge time	1.4 hours
Lead-free	All electronic components and assemblies are RoHS-certified.
Smart device	iPhone 5s (required)
Field operability	System works in 80% humidity.

Workflow

Tests are analyzed onboard in real time with no cellular or WiFi connection required. Results are available in amplification plot (JPG) and raw data (CSV) formats.

Data can be transferred wirelessly via cellular or WiFi connection and backed up to Biomeme's cloud-based data management portal for downstream analysis.



**1. Place tubes
into the device**

**2. Run test using
iPhone interface**

**3. Send results to
cloud-based portal**

Disclaimer

This product is for Research Use Only. The two3™ may not be used for any other purpose, including but not limited to use in therapeutics, drugs, in vitro diagnostics or human health. Biomeme products may not be transferred to third parties, resold, modified for resale or used to manufacture commercial products or to provide a service to third parties without written approval of Biomeme, Inc.

Biomeme, Inc.
20 N. 3rd St.
Philadelphia, PA, USA 19102
biomeme@biomeme.com

For more information on the two3™, including video guides and visual instructions, contact Biomeme.