

# Agilent BioTek LogPhase 600 Microbiology Reader

Designed for one purpose: microbial growth curve analysis

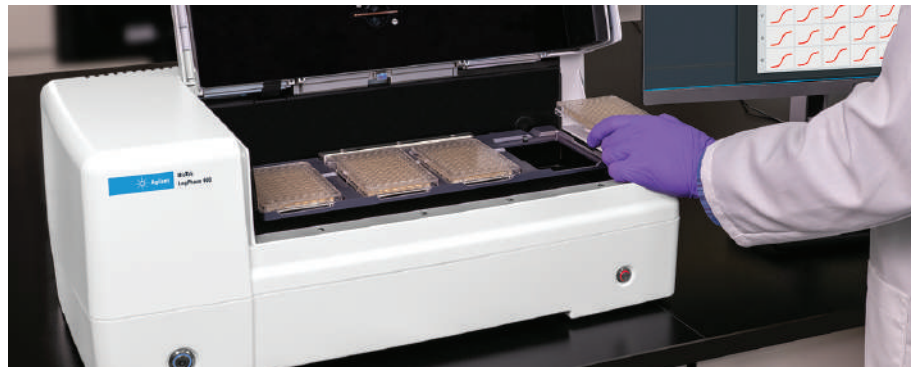


# Agilent BioTek LogPhase 600 Microbiology Reader

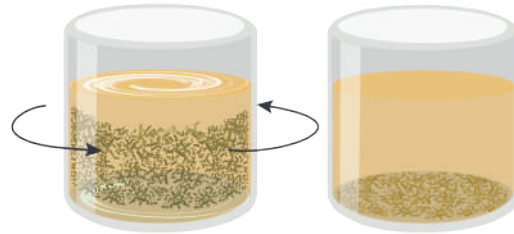


The Agilent BioTek LogPhase 600 microbiology reader is in a class of its own, designed for measuring microbial growth curves in up to four standard 96-well microplates at a time. It features purpose-built, robust shaking and consistent temperature control, which are critical to optimal bacteria and yeast cell growth, to ensure the best data quality. The LogPhase 600 microbiology reader is controlled with an app to acquire data and perform microbiology-focused analysis for all plates.

## Four microplate capacity

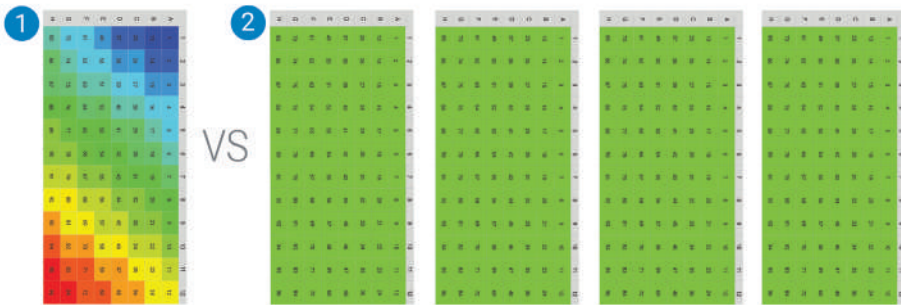


The LogPhase 600 allows users to read up to four microplates in a single run. You no longer need multiple instruments, multiple PCs, and a vast amount of bench space for your microbial growth assays.



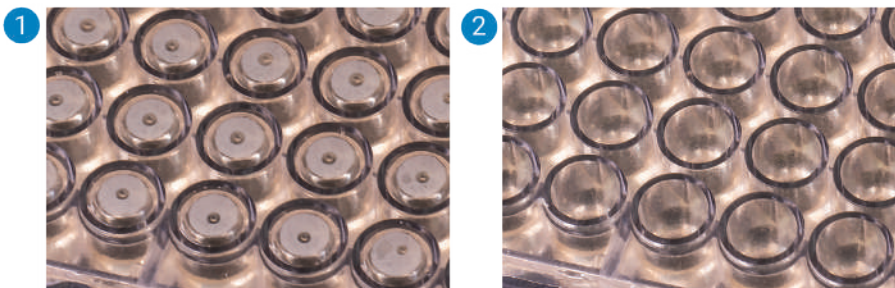
### Keep your cells in suspension for optimal growth

The shaking mechanism in LogPhase 600 is specifically designed for microbial growth assays; its robust and superior shaking ensures that your cells will not settle, even during long-term kinetic assays.



### Optimized incubation

Consistent temperature control is essential to successful microbial growth assays. Incubation in the LogPhase 600 is controlled by several sensors to ensure even heating throughout, without edge effect or evaporation. Incubation can be inconsistent in some microplate readers **(1)**. LogPhase 600 ensures consistent inter- and intra-plate heating **(2)**.



### Condensation Control

Condensation Control sets a temperature gradient from top to bottom to prevent condensation on the sealed plates that can cause light scatter and reading artifacts. **(1)** Condensation on plate seals can cause inaccurate and inconsistent measurements. **(2)** Condensation Control in the LogPhase 600 prevents condensation, enabling consistent data collection throughout the kinetic run.

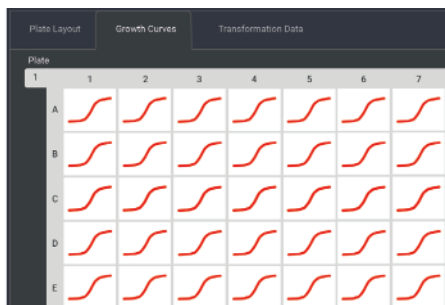
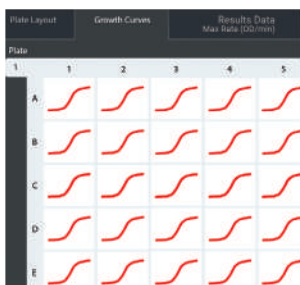


Plate	1	2	3	4	5	6	7
A	07:46:11	08:01:58	07:58:00	07:59:56	07:56:45	08:06:19	07:57:25
B	07:46:11	07:58:38	07:54:10	07:53:54	07:57:13	07:57:24	07:54:53
C	07:46:11	07:52:45	07:53:25	07:51:42	07:52:07	07:54:04	07:54:16
D	07:46:11	07:56:32	07:56:02	07:49:55	07:51:36	07:54:00	07:50:02
E	07:46:11	07:48:25	07:52:24	07:54:39	07:54:19	07:53:26	07:51:34

## Consistent growth conditions = consistent data

Optimized shaking, temperature, and condensation control provide consistent, robust kinetic growth data amongst replicates and between varying test samples.



Well	A1	B1
Name	Control	Sample2
Lag Time	0:21:43	0:29:40
Max Rate (OD/min)	1.41E-04	1.66E-04
Stationary Phase	1:59:56	2:02:35

## Targeted, powerful, and easy-to-use app

The LogPhase 600 app has an easy-to-use interface with analysis tools designed for microbial growth researchers. New users can be up and running in minutes with very little training. Multiplate data can be viewed on the screen at the same time. The app automatically calculates lag time, maximum rate (OD/min) and time to stationary phase.

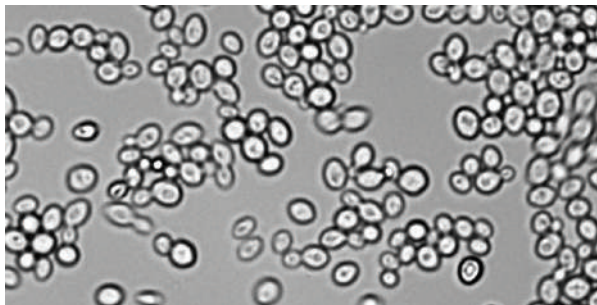


## Agilent BioTek LogPhase 600 microbiology reader features include:

- Up to four microplates read in a single run
- Keep your cells in suspension for optimal growth
- Condensation and evaporation control
- Consistent growth conditions = consistent data
- Easy to use and powerful targeted app

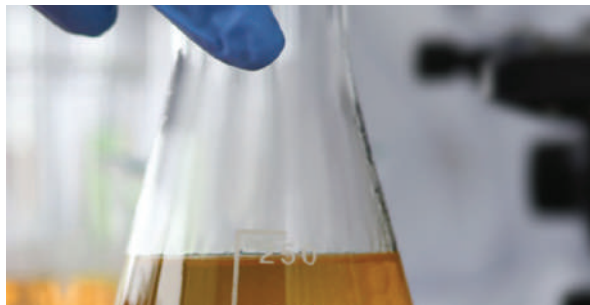
# Applications:

## Yeast growth assays



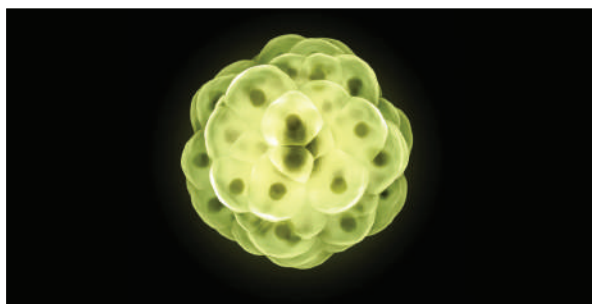
Yeast can grow rapidly, and is amenable to genetic and biological procedures, making it a common model system for research in cell biology. Kinetic measurement and growth curve analysis are automated with LogPhase 600.

## Bacterial growth assays



LogPhase 600 provides an easy-to-implement solution for labs that wish to increase throughput while streamlining the typical bacterial growth and metabolism study workflows.

## Algal research



The growth of photosynthetic organisms like algae is easily detected in microplates by light scattering methods at OD 600.

## Antimicrobial resistance



The consistent environmental conditions within LogPhase 600 enable scientists to observe bacterial growth curves as part of antimicrobial resistance assays. The four-plate capacity enables higher throughput than other systems.

## Biofuels research



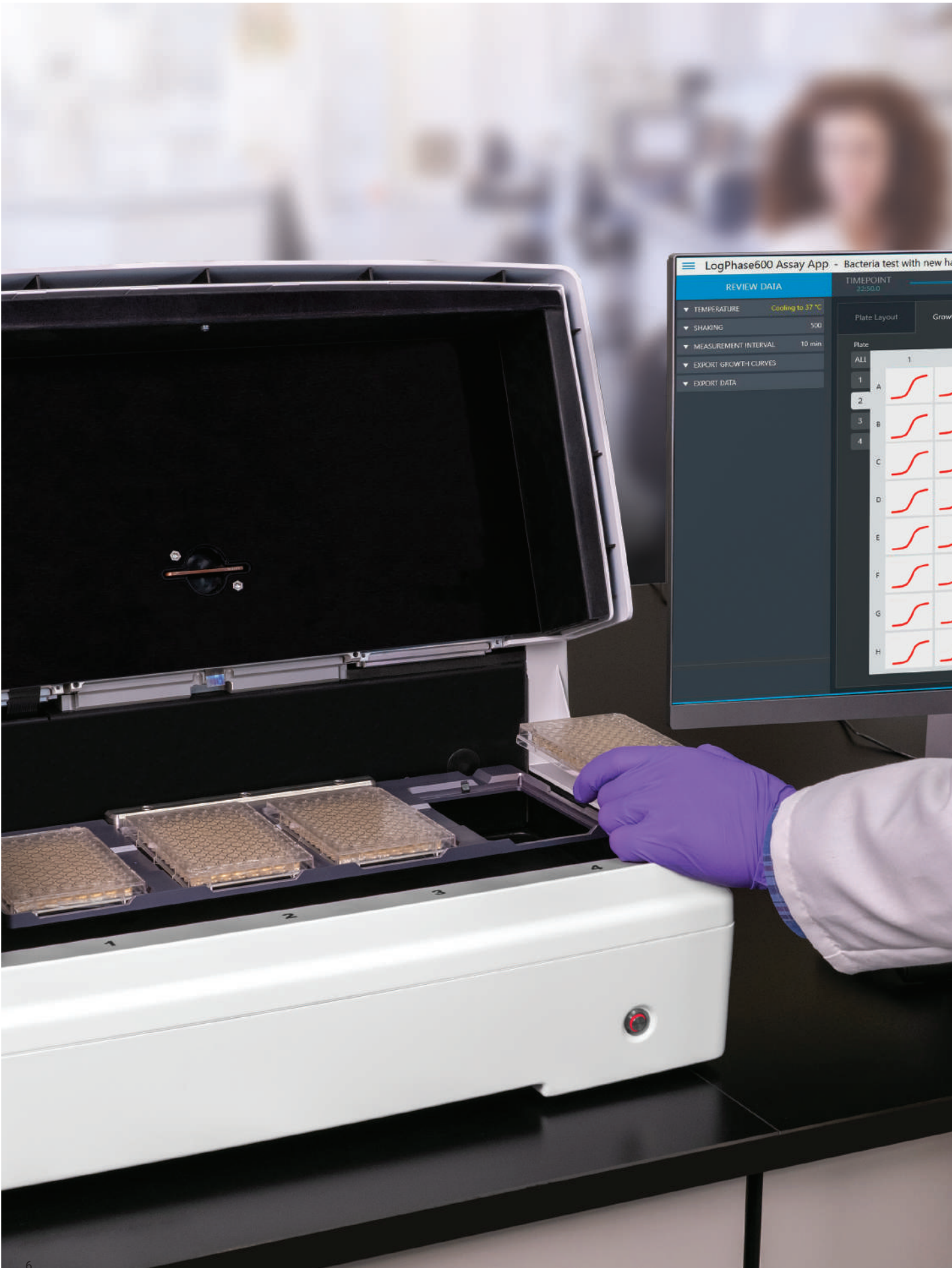
Monitoring the growth of microbes is critical to many biofuels research methods. The four-plate capacity in LogPhase 600 increases the throughput compared to standard microplate readers.

## Food and beverage testing



The multiplate capacity, robust shaking and incubation make LogPhase 600 an ideal platform for food and beverage testing methods.





LogPhase600 Assay App - Bacteria test with new ha

REVIEW DATA

- TEMPERATURE Cooling to 37 °C
- SHAKING 500
- MEASUREMENT INTERVAL 10 min
- EXPORT GROWTH CURVES
- EXPORT DATA

TIMEPOINT

22:50:0

Plate Layout



# Technical Details



General	
Detection mode	Absorbance
Microplate types	96-well microplates
Microplate capacity	4-microplate capacity
Temperature control	Incubation to 45 °C with Condensation Control Variation $\pm 0.5$ °C at 37 °C Plate to plate uniformity $\pm 0.5$ °C at 37 °C
Shaking	Orbital, user-selectable velocity
Software	LogPhase app included; provides reader control, data collection and analysis
Absorbance	
Light source	LED
Detector	Two photodiodes (measurement and reference)
Wavelength range	560 nm – 640 nm, configuration dependent
Dynamic range	0 - 4.0 OD
Resolution	0.001 OD
Reading speed	Reading speed: <60 s per plate Minimum kinetic interval: 2 min 30 sec (<60 s read time; 90 s shake) per plate
Physical characteristics	
Power	24 VDC power supply compatible with 100–240 volts AC at 50–60Hz, 250W (minimum)
Dimensions	10.5" H x 26.0" W x 16.0" D (26.7 x 66 x 40.6 cm)
Weight	50 lbs (22.7 kg)

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