

No more CFUs.
Don't miss a single bacterium.



QUANTOM Tx™

MICROBIAL CELL COUNTER

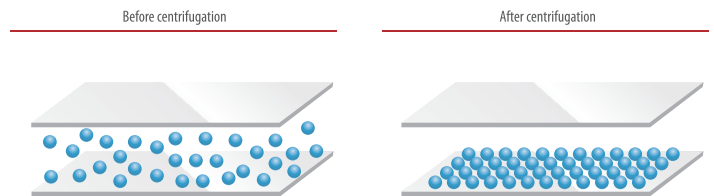
Rapid Single Bacterial Cell Quantification



| QUANTOM™ Innovations for Increased Counting Accuracy

Uniform distribution and immobilization

The QUANTOM™ Cell Loading Buffer I immobilizes cells within the medium and the QUANTOM™ Centrifuge evenly distributes the cells along a single plane for accurate detection.



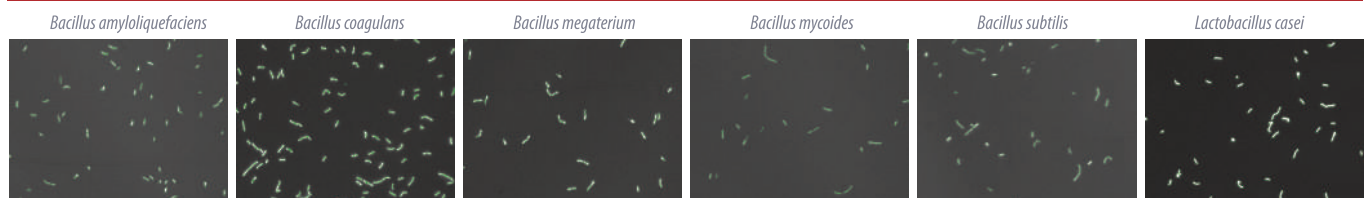
Bacteria-specific declustering algorithm

The QUANTOM Tx™ has a novel detection and declustering algorithm that can accurately count individual bacterial cells in the tightest clusters or the longest chains.

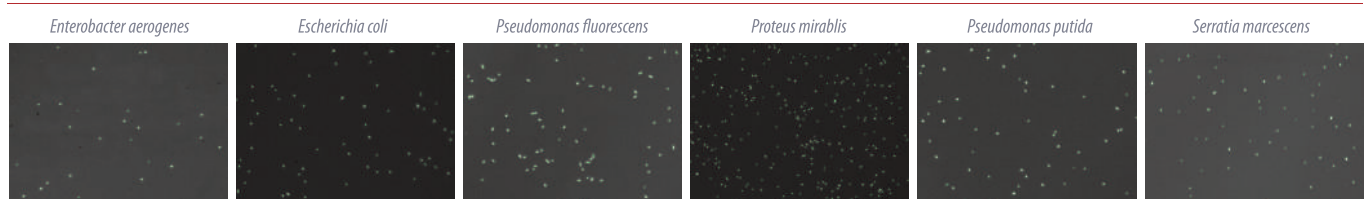


| Bacteria Validated on the QUANTOM Tx™

Gram positive



Gram negative

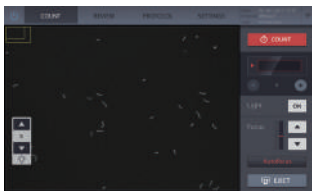


This is a partial list of bacteria tested on the QUANTOM Tx™.

The QUANTOM Tx™ Microbial Cell Counter can automatically identify and count individual bacterial cells in minutes.

Bacteria are an incredibly diverse group of organisms that come in a variety of shapes, sizes, and arrangements, making quantification a challenging feat. The ubiquitous colony counting method is a time-consuming, unreliable estimation at best and even expensive flow and laser scanning cytometers register each particle, single or clustered, as a single event. The QUANTOM Tx™ counts fluorescence-stained microbial cells through automated fluorescence imaging and analysis to produce accurate and objective bacterial cell counts.

Powerful technology, simple user interface



Rapid

No more waiting days for samples to grow, for colonies to grow large enough to count. No more meaningless turbidity measurements and graphs. The QUANTOM Tx™ captures and analyzes high resolution images of up to 10 fields of view within 30 seconds. The autofocus feature of the QUANTOM Tx™ selects the best focal plane across multiple fields of view to ensure accurate cell counts.



Accurate

Sensitive fluorescence optics and a CMOS sensor work in tandem to detect even the smallest cells and a highly sophisticated declustering algorithm distinguishes individual bacterial cells in sequence or clusters. Counting parameters can be customized and saved to accommodate the morphological diversity of bacteria.



Convenient

The QUANTOM Tx™ allows users to review cell count data onboard. Scroll through analyzed images and histograms to see what was counted. Export count data, cell images, and comprehensive data reports via WiFi or USB.

Counting with the QUANTOM Tx™

1. Mix cells with stain and loading buffer. Load into a counting slide.
2. Spin the slide in the QUANTOM™ Centrifuge.
3. Put the slide in the QUANTOM™. Press Count.
4. Review data.



Product Specifications

QUANTOM Tx™ Microbial Cell Counter

Physical Characteristics	Instrument type Benchtop bacterial cell counter
	Touchscreen 10" capacitive touchscreen, 1280 x 800 pixels
	Dimensions 43.3 x 31.0 x 22.5 cm (17.0 x 12.2 x 8.8 in)
Technical Specifications	Weight 10.8 kg (23.9 lb)
	Cell detection method Automated fluorescence microscopy
	Processing time ~ 30 seconds (to capture and analyze 10 images)
	Sample concentration range 2 x 10 ⁵ to 1 x 10 ⁹ cells/mL (optimal: 1 x 10 ⁶ to 5 x 10 ⁸ cells/mL)
	Cell size range 0.3-50 µm
	Sample volume Loading volume: 5-6 µL, measuring volume: 0.09 µL (10 images)

QUANTOM Tx™ Centrifuge

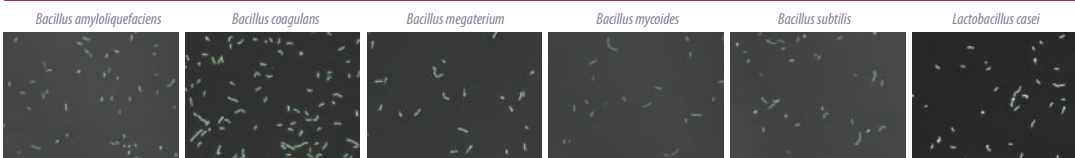
Physical Characteristics	Instrument type Benchtop centrifuge
	Dimensions 21 x 21 x 22 cm (8.3 x 8.3 x 8.7 in)
	Weight 5.64 kg (12.4 lb)
Technical Specifications	Maximum capacity Up to 8 QUANTOM™ M50 Cell Counting Slides
	Maximum RPM 4,000
	Safety features Safety lid lock, lid drop protection, automatic door release
	Electrical requirements 110 V AC, 60 Hz, 1 A or 220-240 V, 50/60 Hz, 0.5 A

QUANTOM Tx™ M50 Cell Counting Slides

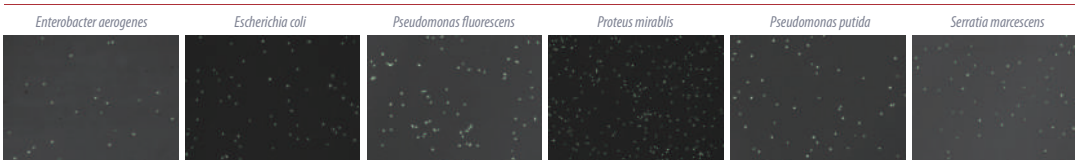
Physical Characteristics	Material Poly(methyl methacrylate) (PMMA)
	Dimensions 25 x 75 x 1.65 mm
	Chamber volume 5-6 µL

Bacteria Validated on the QUANTOM Tx™

Gram positive



Gram negative



This is a partial list of bacteria tested on the QUANTOM Tx™.

Ordering Information

	Cat #	Product	Quantity
Instruments	Q10001	QUANTOM Tx™ Microbial Cell Counter	1
	Q10002	QUANTOM™ Centrifuge	1
Slides & Reagents	Q12001	QUANTOM™ M50 Cell Counting Slides, 50 Slides	1 box
	Q12002	QUANTOM™ M50 Cell Counting Slides, 500 Slides	10 boxes
	Q13501	QUANTOM™ Total Cell Staining Kit	1 kit
		Q13101 QUANTOM™ Total Cell Staining Dye	
		Q13002 QUANTOM™ Total Cell Staining Enhancer	
		Q13001 QUANTOM™ Cell Loading Buffer I	
Accessories	Q13502	QUANTOM™ Vable Cell Staining Kit	1 kit
		Q13201 QUANTOM™ Vable Cell Staining Dye	
		Q13003 Dimethyl Sulfoxide	
		Q13004 QUANTOM™ Vable Cell Dilution Buffer I	
		Q13001 QUANTOM™ Cell Loading Buffer I	
	Q13102	QUANTOM™ Calibration Beads	1 x 0.5 mL
	P10001	LUNA™ Printer I	1
	P12001	LUNA™ Printer I Paper (Thermal, 275 prints/roll, 6rolls)	3 x 2 rolls

TESTIMONIALS



The QUANTOM Tx™ is extremely user-friendly with a beautiful, intuitive interface. The entire process from start to finish is very quick, so we were able to gather a lot of data in a short amount of time. We mastered the staining protocol very quickly, and even the more inexperienced members of our research group were able to use the machine properly with ease. We were blown away by the quality of the images we received, even in mixed cultures of bacteria gathered from various biological samples!

Laila Phillips
Sinai Hospital Division of Gastroenterology

Great results. I am very happy with the instrument.
The instrument is very easy to use. The sample prep is quick and the the replicates are pretty tight. I used it for counting very small cells, as well as bacteria that grow in chains or clusters and the software does a great job analyzing the image. I compared the results to other methods and the results are spot on. Overall, I am very happy with the purchase.

Violetta Medik
Evelo Biosciences

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