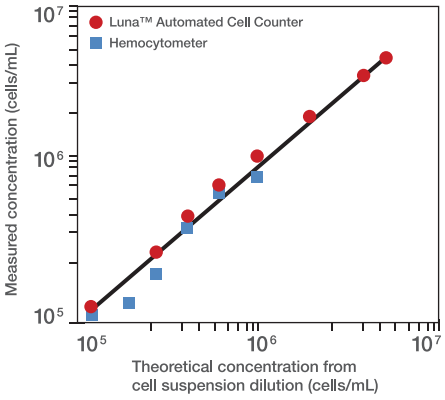
# Luna™

## **Second Generation**
## Automated Cell Counter

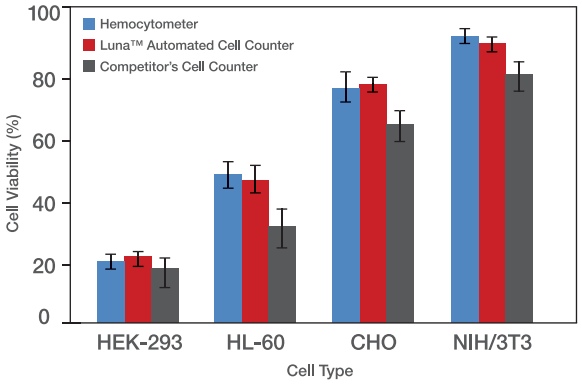
Luna™ is an automated cell counter that accurately measures cell number and viability for various purposes. Incorporating many innovations introduced by Logos Biosystems, Luna™ provides you with an accurate, fast, easy and affordable cell counting experience. Accelerate your research with the most advanced technology.

# The All-New Automated Cell Counter.

## Advanced Accuracy




**The Luna™ automated cell counter demonstrates accurate cell counts across an extended range of cell concentrations.**




**The Luna™ automated cell counter demonstrates accurate viability result.** The hemocytometer and Luna™ cell counter showed an excellent correlation without statistically significant differences.

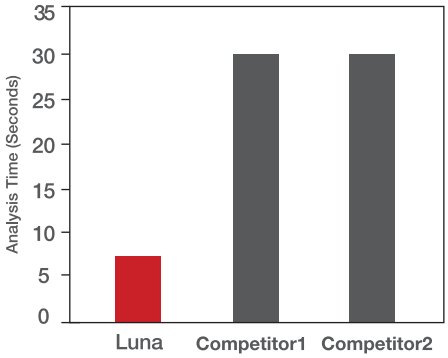
The Luna™ automated cell counter gives you the accurate live/dead cell counting results within 7 seconds. Based on the precision optical design and the new software algorithm, cell counting accuracy is unsurpassed. Within a $5X10^4 \sim 1X\ 10^7$ cells/ml concentration range and 3 ~ 60 μm cell diameter, Luna™ software accurately detects live/dead cells, and discriminates cell debris. Individual cells in cell clusters are also successfully counted by Luna's new de-clustering algorithm.

**Luna™ Cell Counting Slide**
The patent-pending design of the Luna™ counting slides has precise chamber height and evenly distributes the cells throughout the chamber.

## Minimal Counting Cost

Automated cell counters utilize disposable counting slides to eliminate washing steps of manual cell counting with glass hemocytometer. Logos Biosystems has developed innovative T-Bond technology (patent-pending) to manufacture the precision cell counting slides more efficiently. The unit price of the slide is almost half of the other brands, saving significant consumable costs for heavy users.

## Shortest Time To Result, less than 7 Seconds




All image-based cell counters utilize image analysis software to extract and analyze live/dead features of cells. During this analysis process, color information is changed to binary (black & white) information, and the features such as brightness, circularity, and diameter are extracted and analyzed. With old algorithms, this process usually takes more than 30 seconds. However, Luna™ has integrated faster computing power and the most advanced cell detection algorithm to reduce the analysis time. It only takes less than 7 seconds by Luna™ cell counter, which is about 5 times faster than other cell counters.

## Interactive Software Interface


On-board Monitoring
Cell counting results can be monitored immediately on the LCD screen of Luna™ cell counter.

### On-board Monitoring

After you performed the cell counting, you can immediately monitor which cells are counted as live or dead on the Luna™ cell counter screen. Green and red circles indicates each live and dead cell. You don't need additional PC software to check the counting results.

### Re-analysis Options

The cell counting results can be saved as a high resolution TIFF image file and/or pdf-format report file to the USB drive. Luna™ cell counter provides re-analysis options for the saved image files. Whenever you want to perform the re-counting, you can do it again and again with the saved cell images.

# Faster, Smarter, Lowest Maintenance Cost

The Luna™ automated cell counter is a stand-alone compact instrument operated by touch screen interface. Its interactive operation by finger gesture will let you easily obtain accurate cell counting results.


## Specifications

| | |
|---|---|
| **Cell counting time** | < 7 sec |
| **Cell concentration range** | 5 X $10^4$ ~ 1 X $10^7$ cells/ml |
| **Cell size range** | 3 ~ 60 μm |
| **Cell circularity range** | 30 ~ 60 % |
| **Cell viability range** | 0 ~ 100 % |
| **Image resolution** | 5 mega pixel ( 5MP ) |
| **Image type** | TIF |
| **Software** | Luna™ software |
| **Reporting** | PDF format report |
| **Dimensions (W x D x H)** | 22 x 21 x 9 cm (8.6 x 8.3 x 3.5 inch) |
| **Weight** | 1.2 kg ( 2.6 lb)<br>(without the external power adaptor) |
| **Operating power** | 10 ~ 240 VAC, 1.5 A |
| **Frequency** | 50 / 60 Hz |
| **Electrical input** | 12 VDC, 3.5 A |
| **Instrument type** | Benchtop cell counter |

## Ordering Information

| Cat# | Product | Quantity |
|---|---|---|
| L10001 | Luna™ Automated Cell Counter | Each |
| L12001 | Luna™ Cell Counting Slides | 50 slides (100 counts) |
| L12002 | Luna™ Cell Counting Slides | 500 slides (1,000 counts) |
| L12003 | Luna™ Cell Counting Slides | 1,000 slides (2,000 counts) |
| T13001 | Trypan blue stain 0.4% for use with Luna™ automated cell counter | 2 X 1 ml |
| B13101 | Luna™ Standard Bead, Concentration(avg.) 1.0 X $10^6$ | 2 X 1 ml |

## Cell Lines Validated

**On The Luna™ Automated Cell Counter**

| Cell Type | Animal | Organ |
|---|---|---|
| A375-c5 | Human | Skin |
| COLO-205 | Human | Colon |
| A431 | Human | Skin |
| Cos-7 | Human | Kidney |
| A549 | Monkey | Lung |
| CHO | Chinese Hamster | Blood |
| DAUDI | Human | Ovary |
| ESC | Mouse | Embryo |
| CHSE | Fish | Embryo |
| HEK-293 | Human | Kidney |
| HeLa | Human | Cervix |
| HepG2 | Human | Liver |
| HESC | Human | Embryo |
| HL-60 | Human | Blood |
| HS578T | Human | Breast |
| Jurkat | Human | Blood |
| MCF7 | Human | Breast |
| MIA PaCa-2 | Human | Pancreas |
| MDA-MB-231 | Human | Breast |
| MOLT-4 | Human | Blood |
| MRC-5 | Human | Lung |
| NIH/3T3 | Mouse | Embryo |
| Neuro 2A | Mouse | Brain |
| NSC | Rat | Brain |
| PLC/PRF/5 | Human | Liver |
| RKO | Human | Colon |
| SUM149PT | Human | Breast |
| THP-1 | Human | Blood |
| U-2 OS | Human | Bone |
| UWB1-289 | Human | Ovary |

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