NanoEnTek

EVE

Automatic cell counter

EVE™

Crazy + Tangible play, 2K13

www.nanoentek.com

NanoEnTek

What is a EVE?

The EVE™ Automatic cell counter uses state-of-the-art optics and image analysis to automate cell counting.

The EVE™ is a bench top counter, designed to measure cell count and viability (live, dead, and total cells) accurately and precisely, using the standard trypan blue technique.



Key features

- **Differentiation clumped cell**
  Provides the accurate counting results with advanced analysis algorithm in clumped cell

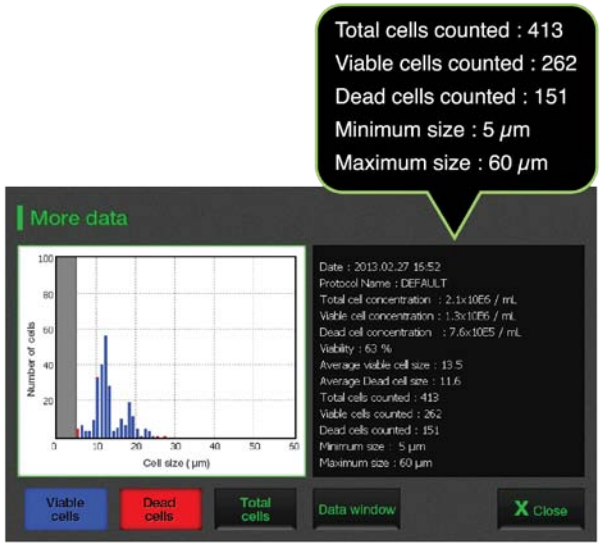
- **Applicable for broad range of cell sizes and types**
  Primary (tissue, blood) cell lines and stem cells

- **Fast counting time**
  Obtains the live, dead and viability results less than 20 seconds

- **User friendly**
  7 inch LCD touch screen, Bench top size, No maintenance needed

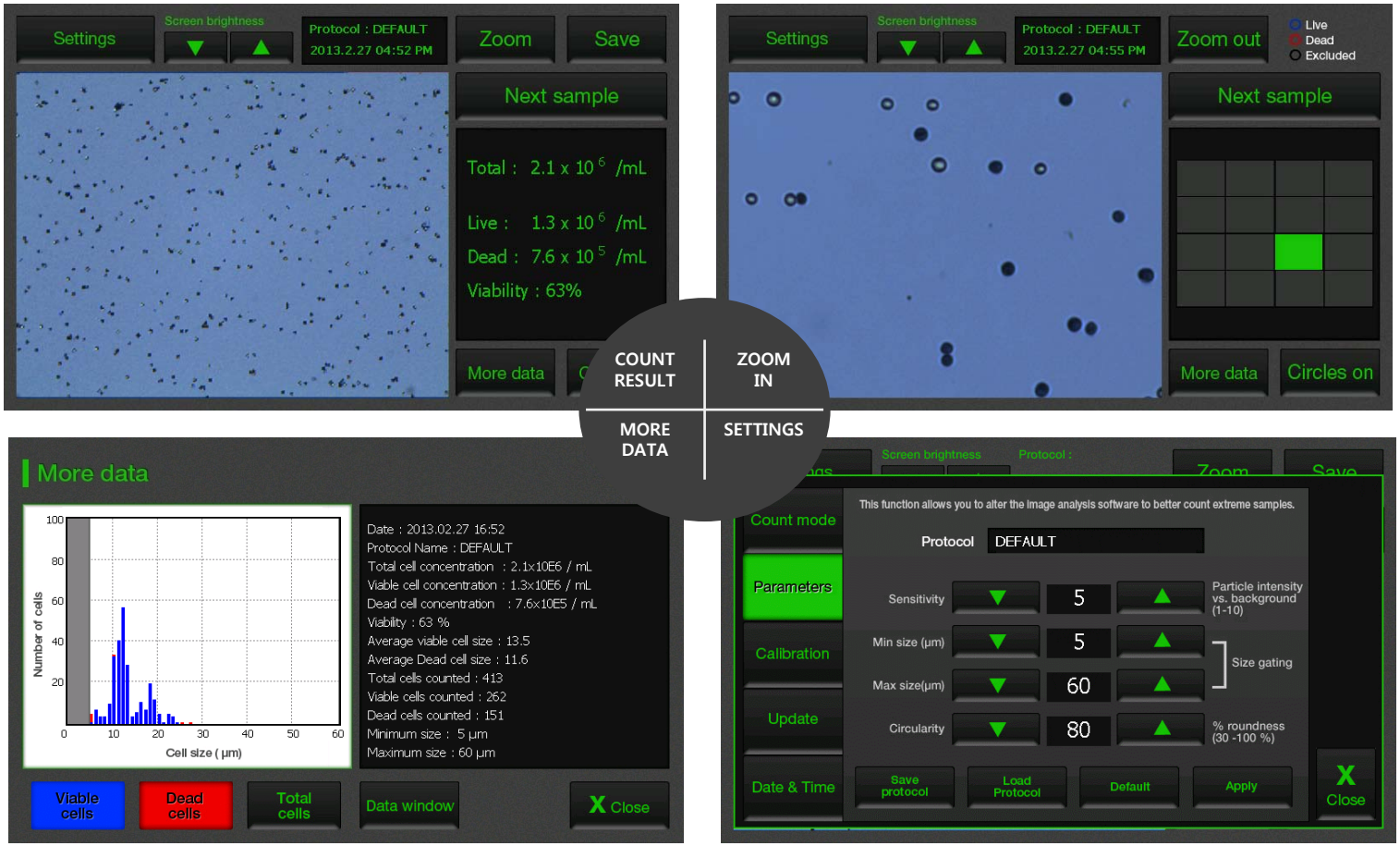
- **Data store and analysis**
  Store 500 test results, transfer the data to PC using USB drive

- **Cell size gating**
  Select range of cell size using gating function



Hardware description

Software description



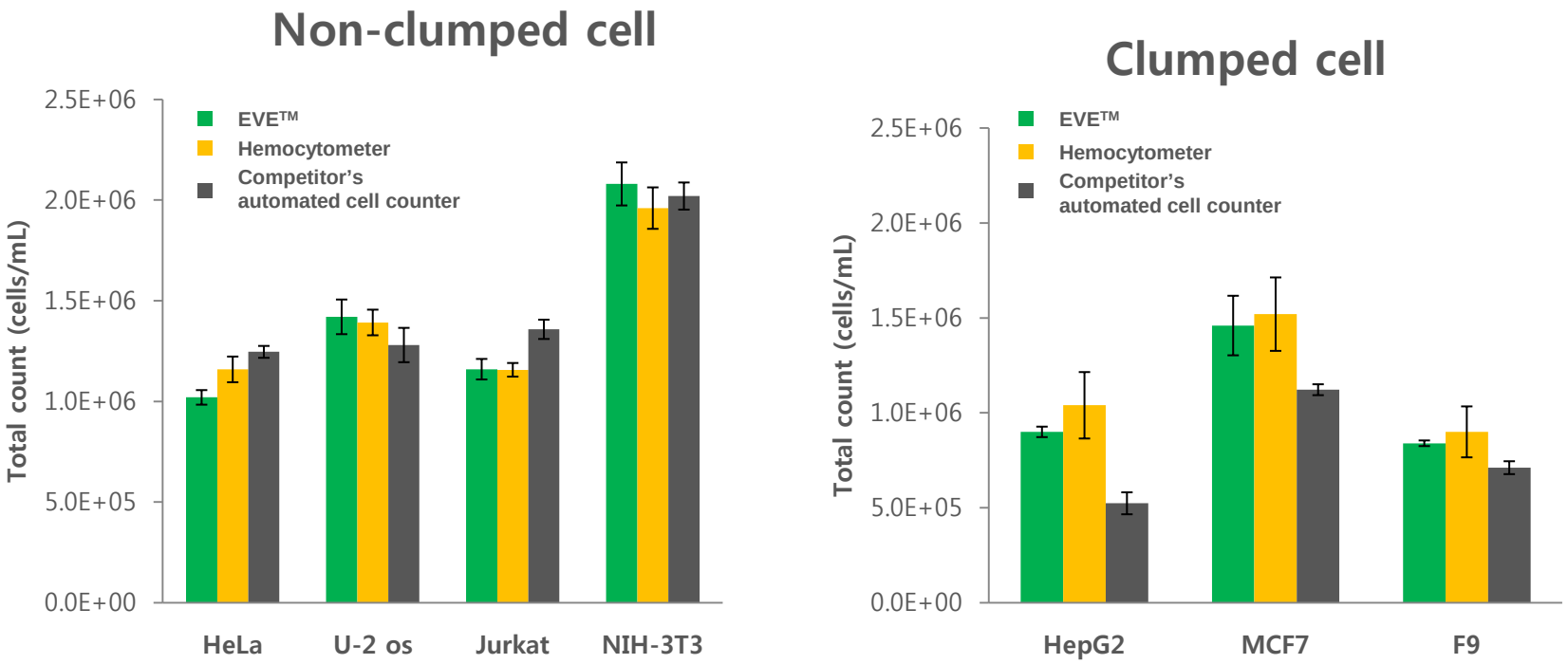
Counting procedures

- Load the sample

- Adjust the focus

- Obtain the results

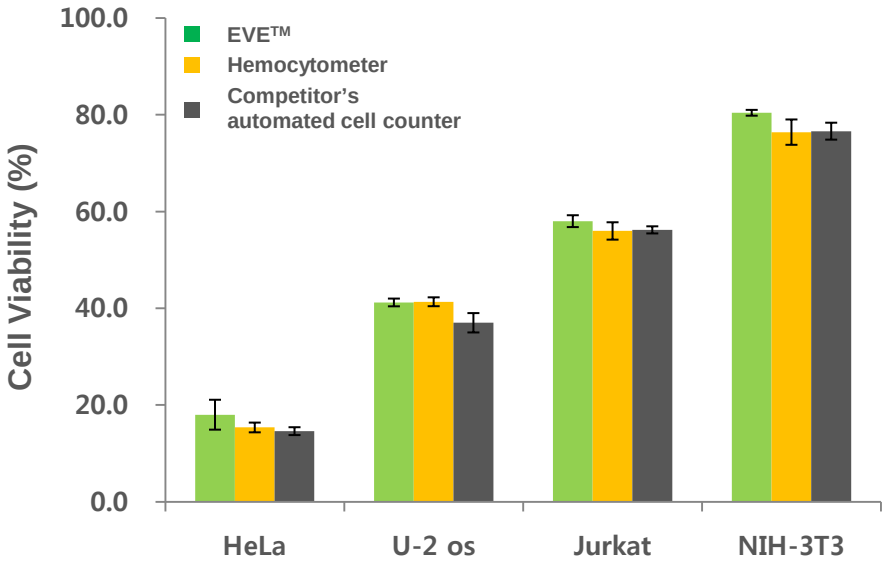
Total cell counting results



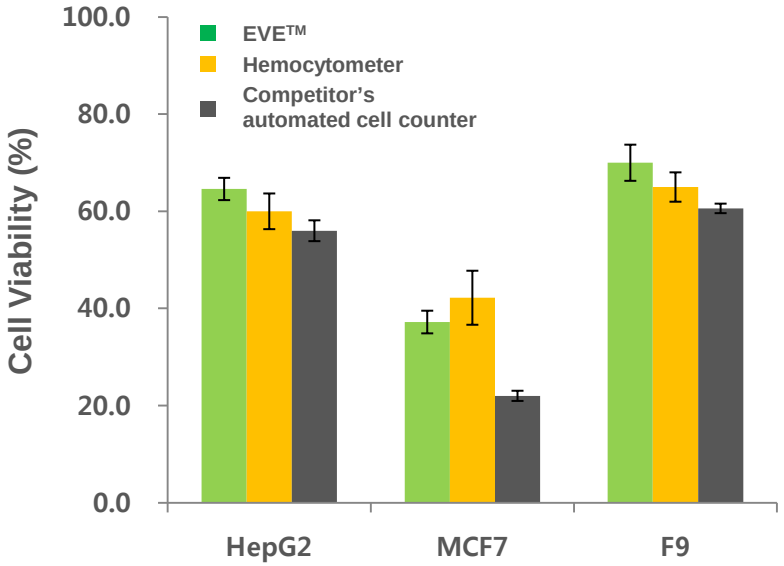
Non-clumped cells (HeLa, U-2 os, Jurkat, NIH-3T3), and clumped cell (HepG2, MCF7, F9) cells were counted with EVE™, a hemocytometer and competitor's automated cell counter. Accuracy and precision are comparable between the EVE™, a hemocytometer and competitor's automated cell counter for all cell lines. The competitor's automated cell counter is significantly less accurate in clumped cell counting. Cell counting results were performed on three different instruments with seven sample replicates.

Viability

Non-clumped cell



Clumped cell



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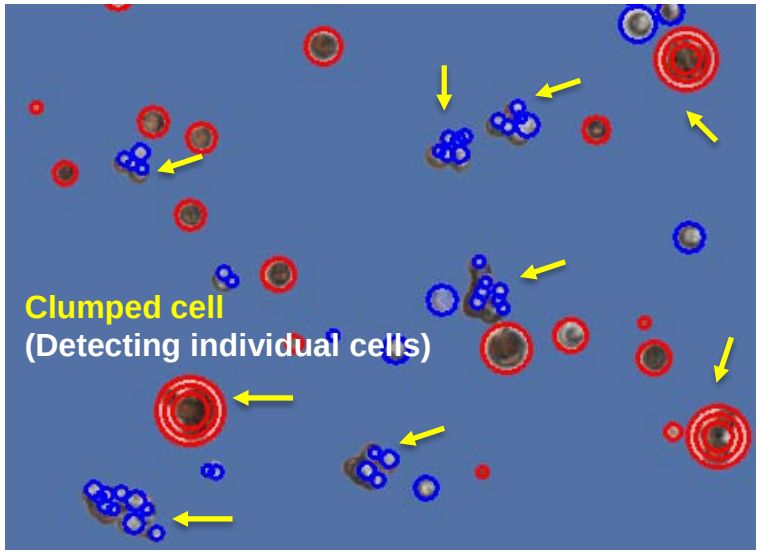
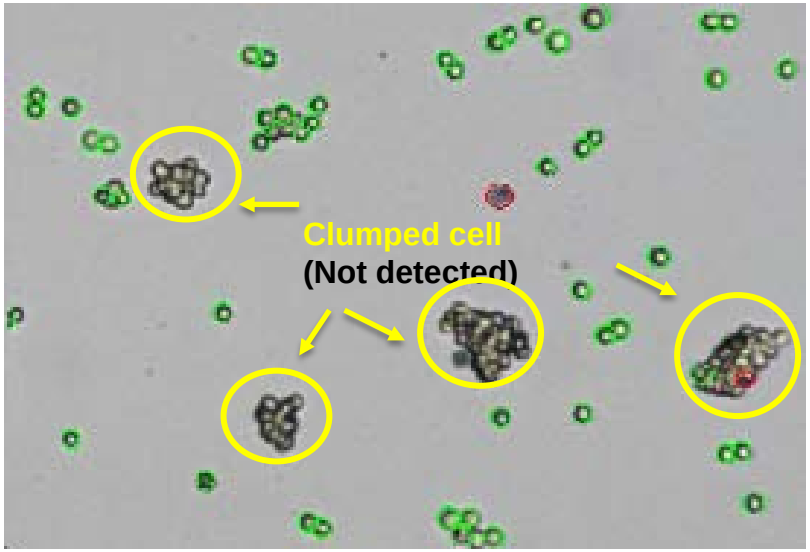
Comparison image (Clumped cells)

EVE™



Live cell Dead cell

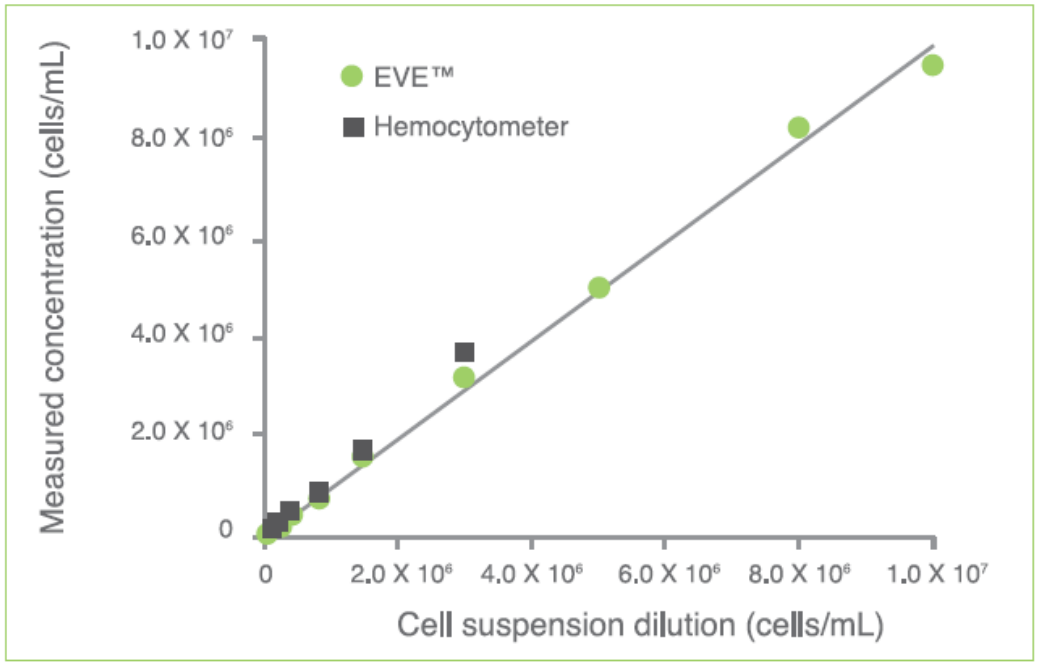
Competitor's automated cell counter



Live cell Dead cell

The MCF-7 breast cancer cell line can be clumpy. The EVE™ counting algorithm identifies and counts individual cells within these cell clumps for accurate analysis.

Correlation of EVE™ and manual counting



Measuring from the EVE™ extend further along the high concentration range than hemocytometer readings.

Cell lines validated on EVE™

Cell Type	Animal	Organ	Growth Properties
HeLa	Human	Skin	Adherent
NIH-3T3	Mouse	Embryo	Adherent
U2-OS	Human	Bone	Adherent
Jurkat	Human	Blood	Suspension
KG-1	Human	Blood	Suspension
HepG2	Human	Liver	Adherent
Hep3B	Human	Liver	Adherent
LNCaP	Human	Prostate	Adherent
SH-SY5Y	Human	Brain	Adherent
SCN2.2	Rat	Brain	Adherent
F9	Mouse	Embryo	Adherent
MCF7	Human	Breast	Adherent
A549	Human	Lung	Adherent
GH3	Rat	Pituitary gland	Adherent

Specifications

EVE™ instrument

Counting time	< 20 seconds
Cell measurement range (cells/mL)	1 x 10^4 – 1 x 10^7
Optimal measurement range (cells/mL)	1 X 10^5 – 4 X 10^6
Cell size range	5 – 60 µm
Sample volume	10 µL
Staining method	Trypan blue stain
Display	7” LCD touch screen
Image format	JPEG (image), CSV (raw data)
Data export	USB drive
Dimensions	27 cm (w) × 20 cm (d) × 19 cm (h)
Weight	2.1 kg (4.6 lbs)

EVE™ Cell counting slide

Material	Polymethyl methacrylate
Dimensions	75 mm (L) × 25 mm (W) × 1.8 mm (H)
Chamber depth	100 µm
Chamber volume	10 µL

Thank You.

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