A HIGH-THROUGHPUT AUTOMATED CELL COUNTER

EVE™ HT

AN IDEAL CELL COUNTER YOU CAN TRUST

48 Counts

3 Minutes

10 µL Samples

21 CFR Part 11 Compliance

High efficiency

NanoEntek
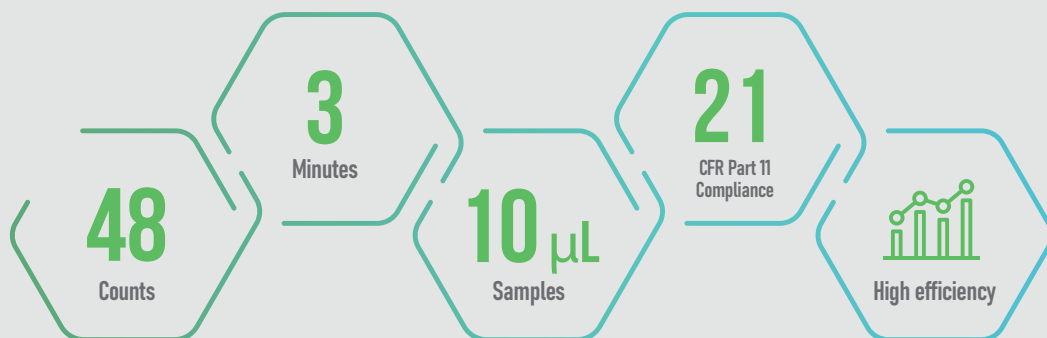
EVE™ HT

A HIGH-THROUGHPUT AUTOMATED CELL COUNTER

Consistent results are essential

EVE™ HT is a high-throughput automated cell counter that can count 48 samples in just 3 minutes. EVE™ HT provides a perfect solution for cell line development and a large scale cell production.

Simple yet Sophisticated Cell Counter

EVE™ HT offer you a better cell counting method.

3 minutes
Results in no time

EVE™ HT only takes 3 minutes to test one plate with 48 samples.

10 μL volume
Considering your valuable samples

Only 10 μL of sample volume is required for cell counts and viability.

48 channels
Up to 48 samples at a time

EVE™ HT counting plate with 48 channels allows you to test up to 48 samples simultaneously.

High efficiency
Run different cell lines with one plate

A highly efficient disposable counting plate allows for different cell lines analysis using the same plate and provides multi test results.
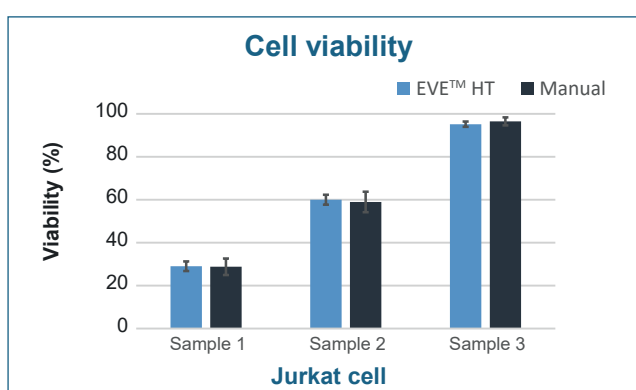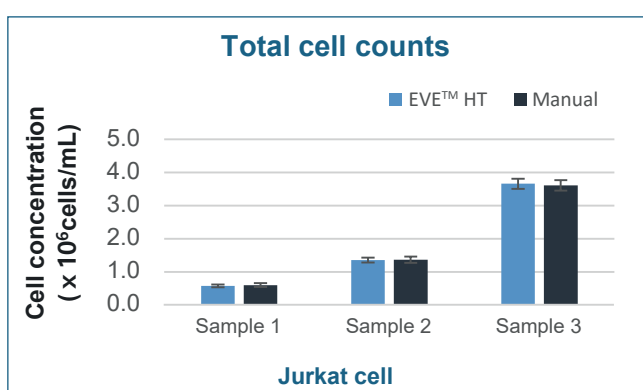
3 min

48x

Disposable EVE™ HT assay plate

Manufactured with high precision,
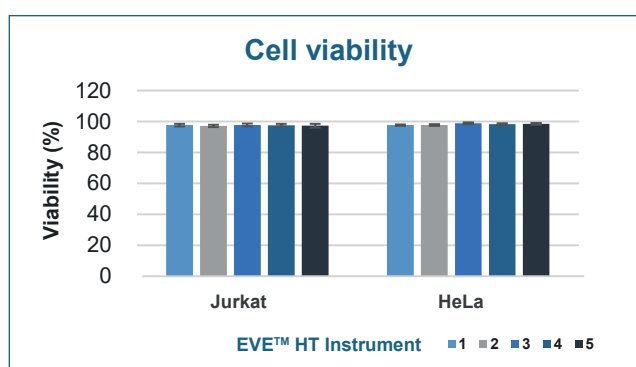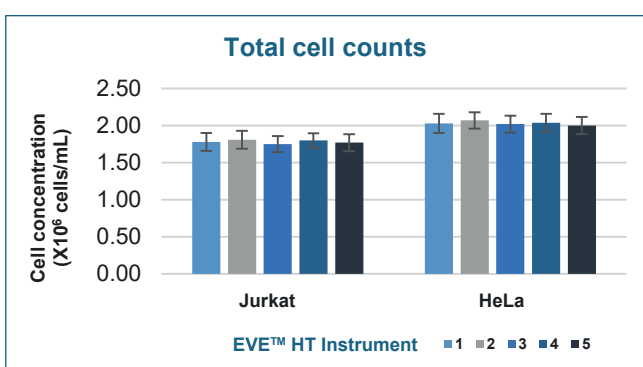EVE™ HT plate provides time-saving workflow that is easy to use.

⊚ High correlation between EVE™ HT and manual counting

Compared to traditional hemocytometer, EVE™ HT provides highly compatible results in varying concentrations and viabilities.

Total cell counts

EVE™ HT ▪ Manual

Cell concentration (× 10⁶cells/mL) — values: 5.0, 4.0, 3.0, 2.0, 1.0, 0.0
Sample 1 · Sample 2 · Sample 3

Jurkat cell

Cell viability

EVE™ HT ▪ Manual

Viability (%) — values: 100, 80, 60, 40, 20, 0
Sample 1 · Sample 2 · Sample 3

Jurkat cell

⊚ Low instrument-to-instrument variability

With five EVE™ HT, consistent results have been demonstrated across different instruments.

Total cell counts

Cell concentration (X10⁶ cells/mL) — values: 2.50, 2.00, 1.50, 1.00, 0.50, 0.00
Jurkat · HeLa

EVE™ HT Instrument ▪1 ▪2 ▪3 ▪4 ▪5

Cell viability

Viability (%) — values: 120, 100, 80, 60, 40, 20, 0
Jurkat · HeLa

EVE™ HT Instrument ▪1 ▪2 ▪3 ▪4 ▪5

EVE™ HT precision	Cell total count (CV)	
	Jurkat	HeLa
Well to well	4.9%	4.8%
Plate to plate	2.4%	1.2%
Instrument to instrument	1.6%	1.1%
System-wide precision	6.3%	5.9%

EVE™ HT precision	Viability (CV)	
	Jurkat	HeLa
Well to well	0.7%	0.6%
Plate to plate	0.2%	0.1%
Instrument to instrument	0.4%	0.5%
System-wide precision	1.0%	0.7%

◉ *High instrument-to-instrument consistency*

Beads solution stained with trypan blue was loaded into a total of 96 wells of two counting plates for analysis where each plate consists of 48 wells. The same sample was analyzed for comparison using a different instrument. As a result, high device-to-device comparability was shown.

Total bead counts

EVE™ HT Instrument ■1 ■2 ■3 ■4 ■5
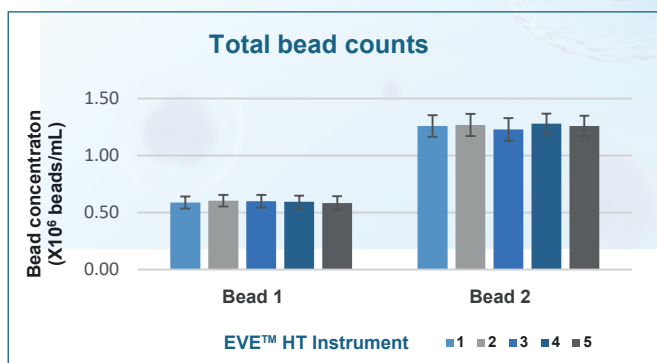
EVE™ HT precision	Bead total conc. (CV)	
	5×10^5 beads/mL	1×10^6 beads/mL
Well to well	8.1%	6.4%
Plate to plate	0.4%	0.8%
Instrument to instrument	1.5%	1.2%
System-wide precision	9.2%	7.6%

◉ *High linearity with expected concentration*

Manual counting using hemocytometer was used to compare low and high concentration within optimal range for EVE™ HT linearity test. A high linearity was shown as a result.

Linearity

$y = 0.9874x + 41033$
$R^2 = 0.997$
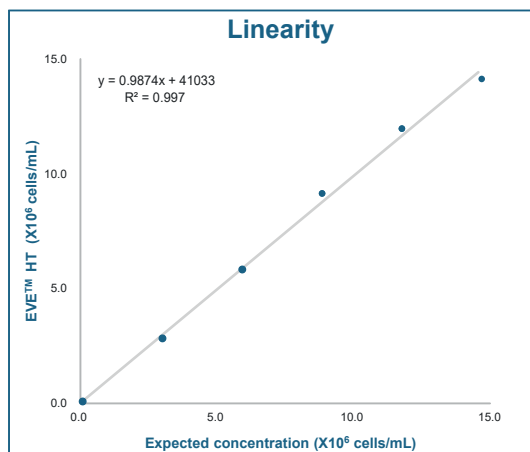
◉ *Advanced counting – Declustering algorithm*

Counting clumped and irregular-shaped cells with declustering algorithm is now available on EVE™ HT.
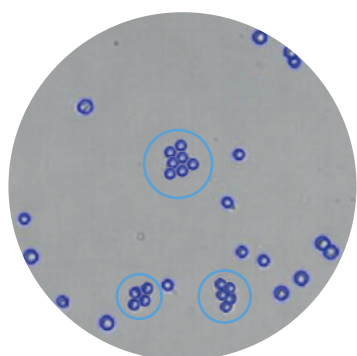
》 With EVE™ HT, you can

- Individually count cells when they are aggregated
- Count each cell based on size and shape
- Exclude debris from results

21 CFR Part 11 Compliance

EVE™ HT offers an optional feature to safeguard data integrity required by 21 CFR Part 11. With this feature, not only a company can easily manage users and only give authority to specific users to manage data, but also allows EVE™ HT to save every user activity and create an audit trail.

Data integrity

Electronic signatures

User management

Audit trail

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Ordering Information

Catalog. No.	Description
EVE-HT	A High-throughput automated counter, EVE™ HT
EVH-020	EVE™ HT Counting kit · Counting plate (48 channels) · Mixing well plate (96 wells) · Trypan blue stain 0.4% · Reservoir

Specification

Item	Description
Channels (optics)	Bright field
Staining method	Trypan blue
Counting Speed	3 minutes (48 samples)
Loading sample vol.	10 µL / channel
Measurement range	$1 \times 10^4 \sim 2 \times 10^7$ cells/mL
Optimal measurement range	$1 \times 10^5 \sim 1 \times 10^7$ cells/mL

Item	Description
Cell size range	1 ~ 85 µm
Optimal cell size range	5 ~ 80 µm
21 CFR Part 11	Available
Operation System	Windows 10 and 11
Dimensions	586 x 477 x 458 mm (W x L x H)
Weight	40 kg

NanoEntek

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