

COUNT ACCURATELY AND ANALYZE EASILY AT YOUR BENCH

# ADAMI<sup>TM</sup> LS

IMAGE-BASED FLUORESCENCE CELL ANALYZER

Total cell counting / Viability / Cell size

Fluorescence expression (GFP/RFP/DAPI)

Apoptosis assay

Cell cycle assay



# ADAMII™ LS

Image-based fluorescence cell analyzer  
for life science and cell biology

ADAMII™ LS is a versatile image-based fluorescence cell analyzer developed for life science laboratories and industry. Users can perform various assays, including total cell count, viability measurement, cell-cycle assay, apoptosis assay and fluorescence expression. ADAMII™ LS shows high correlation with flow cytometer.



## KEY FEATURES & BENEFITS

- **Accurate measurement**  
(Capture up to 75 images)
- **Versatile application**
- **Similar result to Flow cytometer**  
(Histogram & Dot plot)
- **Convenient usage**  
(Easy & Simple process for assay)

Accurate measurement

Absolute counts

High reproducibility



## Fulfilling 21 CFR Part 11 Compliance

ADAMII™ LS regulates electronic records and signature by only allowing specific user(s) to modify data. Every action of user is recorded in an audit trail, while date, time and specific details are displayed.

## Versatile application, convenient use, and accurate result

ADAMII™ LS is easy to set up and convenient. Users can analyze cells with ease, and without intensive training and effort. Everyone can run any cell-based assay with high accuracy and low variation (CV %).

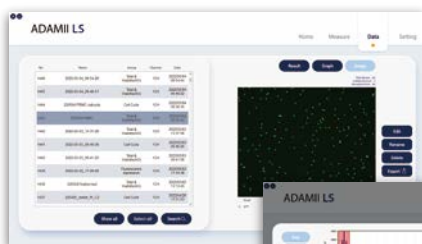


Image-based  
fluorescence cell analyzer



Apoptosis assay



Total cell counting /  
cell viability / cell size



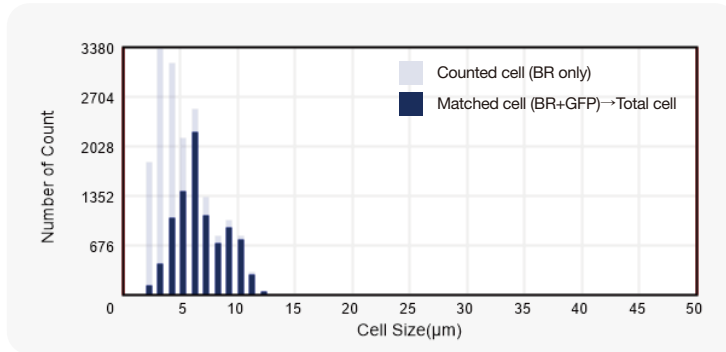
Cell cycle assay

# ADAMII™ LS, Image-based fluorescence cell analyzer

## Total cell counting / Viability

In a PBMC sample containing RBC and platelets, only nucleated cells (lymphocyte) are counted through fluorescence staining. It shows better performance than the trypan blue staining method commonly used. By staining cells with reagent, the mixture of AO (Acridine Orange, cell permeable dye), and DAPI (impermeable DNA dye), and utilizing dyed fluorescence image, it measures total cell count and viability more accurately compared to the trypan blue staining method.

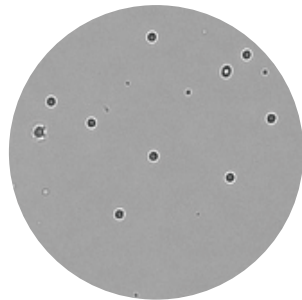
Sample: PBMC



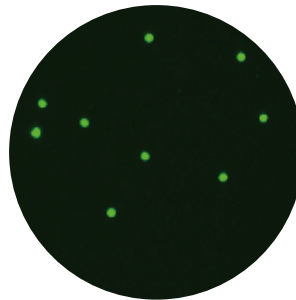
\* Remove debris by double checking (BR + GFP)

Total cell

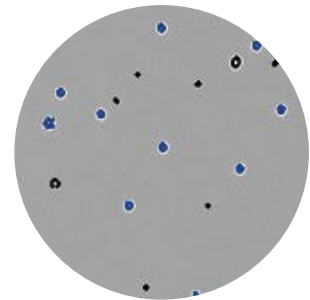
(BR & GFP counting)  
(Magnified)



Bright field

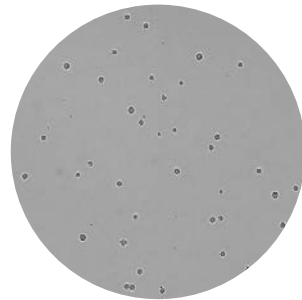


GFP (AO) : Total cell

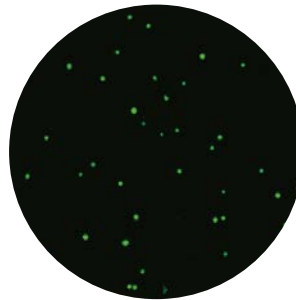


Selected cell  
(BR + GFP mask)

Viability



Bright field



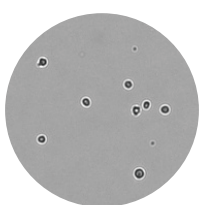
GFP (AO) : Total cell



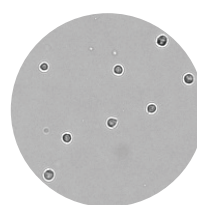
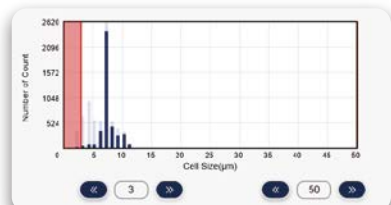
DAPI : Dead cell

## Cell size gating

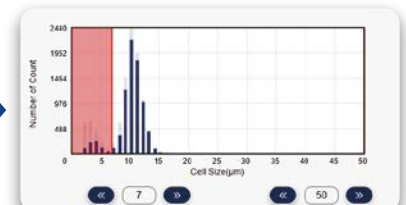
ADAMII™ LS provides accurate cell size data measured by 10 x lens. The photographed cells are analyzed according to their size and the results are presented in the form of a histogram. By performing cell size gating according to the size of each cell type, users can selectively obtain the accurate data and values of the desired cells.



PBMC

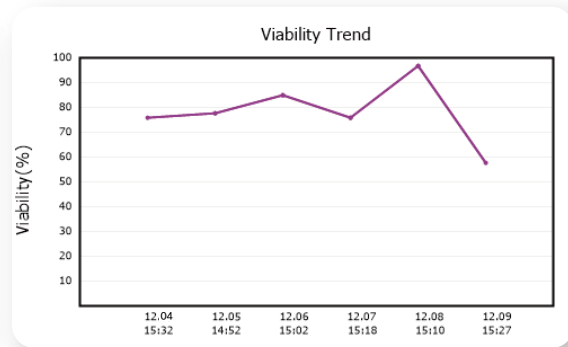
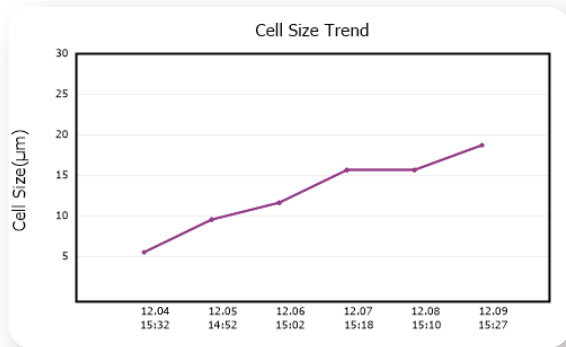


Jurkat



## Cell size & Viability trend curve

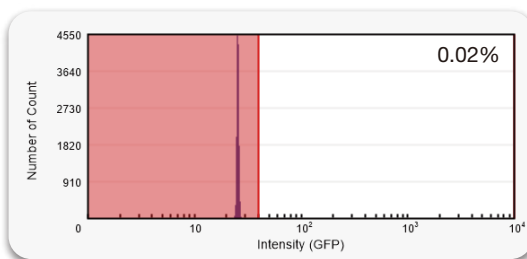
User can compare and monitor cell size or viability by selecting the desired datum of a specific period. These trends could be helpful to see cell behavior and to decide the optimal time point to harvest or treat.



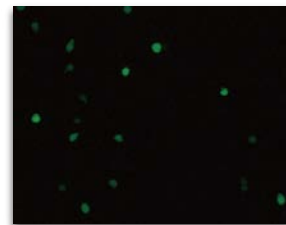
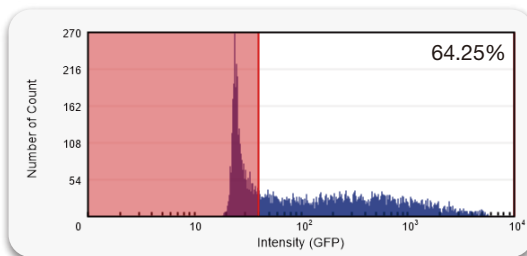
## Fluorescence expression

Through the dot plot of either a single channel result or double channel result, it is possible to measure various fluorescence reagents and cell samples desired by the user.

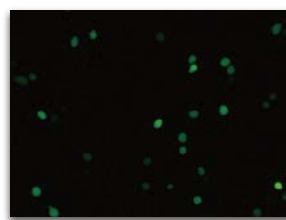
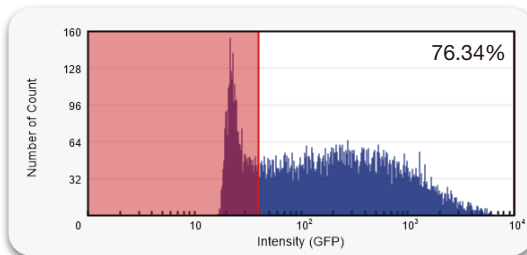
**No transfection**



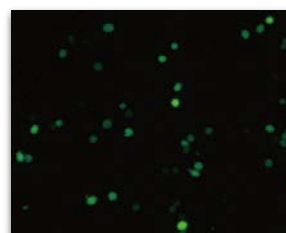
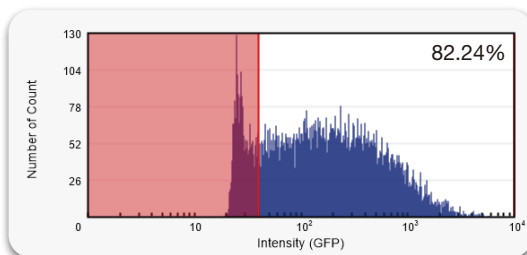
**24 hrs**



**48 hrs**



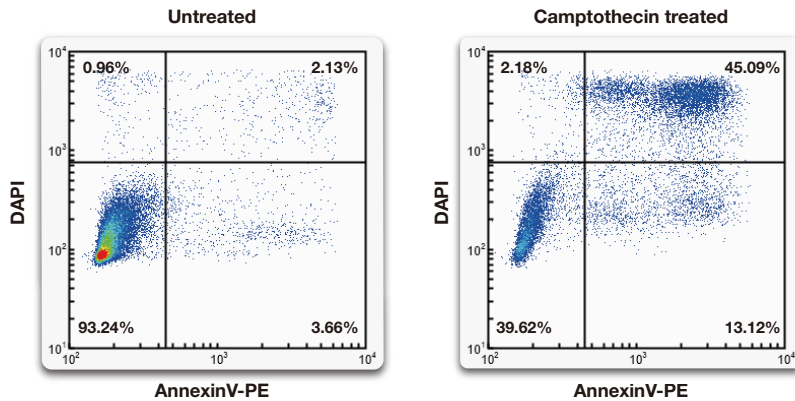
**72 hrs**



Hela cells transfected with GFP

## Apoptosis

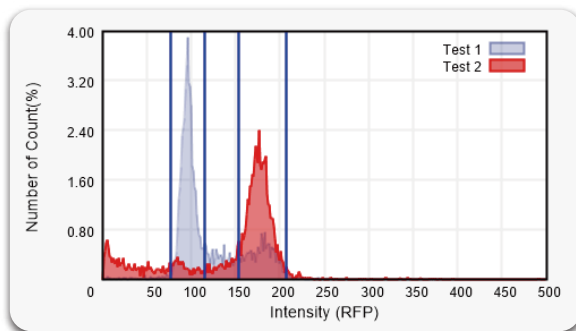
Apoptosis is programmed cell death which can be analyzed using Annexin V and DAPI reagent. Annexin V binds with phosphatidylamine on the plasma membranes. DAPI binds with DNA in the cells. Through two fluorophores, early and late apoptotic cells are detected with the dot plot.



Jurkat cells treated with Camptothecin

## Cell cycle

ADAMII™ LS uses PI cell cycle reagent for cell cycle assay. It generates cell cycle histogram which is similar to flow cytometer (FACS), and cell cycle comparison report, which enables to compare the change of cell cycle between control group and experimental group.



	Test 1		Test 2	
	Conc. (cells/mL)	%cells	Conc. (cells/mL)	%cells
Total cell :	9.39 x 10E5		8.36 x 10E5	
G0/G1 phase :	5.47 x 10E5	58.30 %	6.62 x 10E4	7.92 %
S phase :	1.42 x 10E5	15.11 %	7.59 x 10E4	9.08 %
G2/M phase :	2.08 x 10E5	22.19 %	5.10 x 10E5	61.03 %

Jurkat cells treated with Etoposide B

### Specification

Item	Description
Lens	10 x
Light source	Bright field, UV, Blue, Green LED
Analysis time	App. 2 min ~ 4 min 30 sec *
Loading volume	25 µL
Measuring volume	≤ 7.8 µL
Measurement range	5 x 10E4 ~ 5 x 10E6 cells/mL
Dimension	300 mm (W) x 420 mm (D) x 370 mm (H)
Weight	19.3 kg

\* Depends on assay or frame.

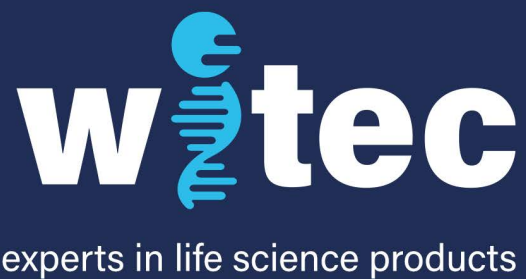
### Ordering information

Cat. No.	Product	Contents
ADAMII-LS	Image-based fluorescence cell analyzer	• Main instrument, Laptop
ALAD-100	Cell viability reagent	• Acridine orange (AO) & 4',6-diamidino-2-phenylindole (DAPI) stain 0.5 mL x 2 tubes (100 Tests)
ALPI-100	PI cell cycle reagent	• Propidium Iodide (PI) stain: 1.25 mL x 2 tubes (100 Tests)
ALAP-100	Apoptosis detection kit	• AnnexinV-PE stain 0.5 mL x 1 tube (100 Tests) • DAPI solution: 125 µL x 1 tube (100 Tests) • AnnexinV binding buffer 10 mL x 1 tube (100 tests)
A2AS-051	ADAMII Assay slide	• 1 ch x 50 slides/ case

Industriestrasse 12  
CH-6210 Sursee

[mail@witec.ch](mailto:mail@witec.ch)

T 041 250 53 57



FOR RESEARCH USE ONLY.

This product is not approved for diagnostic or therapeutic use.

**NanoEntek, Inc.**

**Head Office**

12F, 5, Digital-ro 26-gil, Guro-gu, Seoul, 08389, Korea  
Tel: +82-2-6220-7940 / Fax: +82-2-6220-7999

**NanoEntek America, Inc.**

220 Bear Hill Road, Suite 102, Waltham, MA 02451, USA  
Tel: +1-781-472-2558 / Fax: +1-781-790-5649

[website](#)

[www.nanoentek.com](http://www.nanoentek.com)

[e-mail](#)

[sales@nanoentek.com](mailto:sales@nanoentek.com)

[Blog](#)

[www.blog-nanoentek.com](http://www.blog-nanoentek.com)