

ADAM™ MC Plus

User Manual



All the materials in this user manual are protected by Korean and international copyright laws. They cannot be reproduced, translated, published or distributed without the permission of the copyright owner.

ADAM MC Plus Instruction Manual

Website: www.nanoentek.com

E-mail: sales@nanoentek.com

NanoEntek, Inc.

851-14, Seohae-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do, 18531, 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. +2-781-790-5649

The information in this manual is described as accurately as possible.
Firmware and software changes and updates may change without prior consent or notification.

Copyright © 2023 by NanoEntek, Inc.

All rights reserved. Published in Korea.

Documentation: **NESMU-ACTP11-001E (V.1.0)**

Revision history: V.0.0 JUN 2023

V.0.1 NOV 2023

V.1.0 DEC 2024

Table of Contents

Introduction	8
General Description	8
Technology	9
Basic principle of counting	10
Product contents	11
ADAM™ MC Plus	11
AccuPlus Slide & Reagent	11
Upon receiving the instrument	11
Product Description	12
Front view of ADAM™ MC Plus	12
Rear view of ADAM™ MC Plus	13
Graphical User Interface of ADAM™ MC Plus	14
Getting started	15
Environmental requirements	15
Power on and Initial Display	15
Error messages during booting	16
Count setting	17
General Operation	18
Quick Guide	18
Sample preparation	19
Cell counting	19
Measure	22
Run sample	22
Result analysis	23
Result Analysis - Error code	24
Data	25
EDIT	26
IMAGE	27
SAVE	28
MAIL	29
Setting	30
Wifi	31
Remote support	31
Update	32
Power off	33

Lock	33
Power off.....	33
Maintenance and cleaning	34
Trouble shooting	35
Warranty	36
Technical specifications	37
Product list	38
Safety precautions	39
Mesures de sécurité.....	40
Safety symbols.....	41
Warnings.....	43
Technical support.....	44

Introduction

General Description

The ADAM™ MC Plus is a highly accurate dual fluorescence cell counter that uses AO (acridine orange) and DAPI to count total and dead cells and also provides a bright field channel for cell size measurement.



Introduction

Technology

Measuring the number of cells and their viability is an essential part of biological experiments and biopharmaceutical procedures. Traditionally, the hemocytometer and trypan blue exclusion method have been used to quantifying total cells, dead cells, and cellular viability. These manual methods have been widely adopted as a standard for cell counting, however, they have limitations.

Non-cellular debris, such as dust or tissue residues, can be miscounted as cells, and the trypan blue exclusion method is known to overestimate cellular viability. Additionally, manual counting is prone to user-to-user variability, impacting consistency and accuracy.

To address these challenges, NanoEntek has developed ADAM™ MC Plus, an image-based fluorescence cell counter. It captures bright field images to quantify cell sizes while using two fluorescence images to quantify the number of total cells and dead cells.

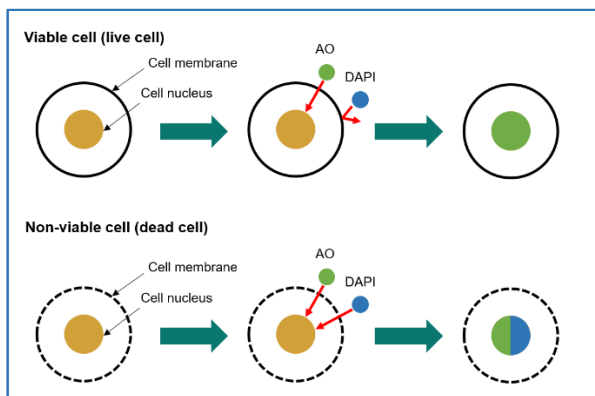
ADAM™ MC Plus is designed to provide accurate, simple, and reliable results.

Introduction

Basic principle of counting

ADAM™ MC Plus uses Acridine Orange (AO) and 4',6-diamidino-2-phenylindole (DAPI) to count total number of cells and number of dead cells, respectively. AO is a cell-membrane permeable dye that stains nucleus of every cells regardless of the cell's condition. Therefore, it is used to count total number of cells. DAPI is a cell-membrane impermeable dye that only stains nucleus of cells with damaged membranes or cells with inactive metabolism. Therefore, it is used to count number of dead cells. Schematics of counting principal is shown below. From total cell counts and dead cell counts, viability of cells is calculated as below;

Principle (Total cell count)



$$*Viability(\%) = \frac{(A-B)}{A} \times 100$$

A: Total cell / B: Non-viable cell

Product contents

ADAM™ MC Plus

ADAM™ MC Plus is shipped in a carton box containing followings;

Item	Quantity
Main device	1
User manual	1
USB hub	1
Wifi dongle	1
Power cord	1
Adapter	1
Printer (optional)	1
QC slide (optional)	1

AccuPlus Slide & Reagent

AccuPlus Slide has following supplies:

Item	AccuPlus Slide (Cat. No: AP4S-100)	Cell viability reagent (Cat. No: APAD-400)
Disposable Slide	100 pcs (4 channel)	N/A
Reagent	N/A	20 mL x 1 bottle
Available test Q'ty	400 test	

**These supplies are sold separately.*

Upon receiving the instrument

- Examine the instrument carefully for any damage incurred during transit.
- Ensure that all parts of the instrument including accessories listed above are included with the product.
- Any damage claims must be filed with the carrier.
- The warranty does not cover in-transit damage.
- Upon receipt, store AccuPlus Slide at room temperature.
- Cell viability reagent should be stored at 2~8°C

Product Description

Front view of ADAM™ MC Plus

The front view of the ADAM™ MC Plus is shown below:

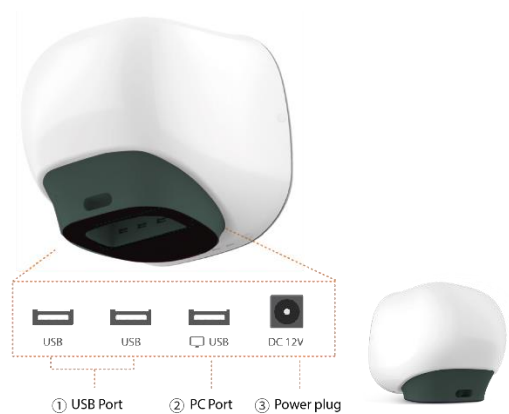


Control buttons	Description
① Door	Allows the slide holder to move in and out of the instrument.
② Power	Turns the instrument on / off.
③ LCD	Serves as the main user interface for operating the instrument and viewing progress and results.

Product Description

Rear view of ADAM™ MC Plus

The rear view showing various parts of the ADAM™ MC Plus.:



Port	Description
① USB Port	Port for software update and save the data.
② PC port	Connects with PC.
③ Power Plug	Connects the adapter plugged into a 12V power outlet to the ADAM MC Plus

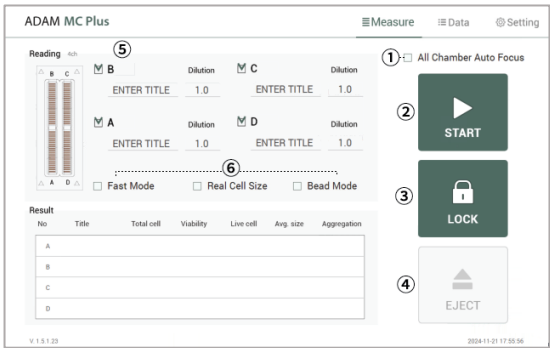
ⓘ CAUTION

Do not use the ② PC port with a flash drive. This port does not recognize a flash drive.

Product Description

Graphical User Interface of ADAM™ MC Plus

The graphic user interface of the ADAM™ MC Plus is shown below:



Control buttons	Description
① Auto Focus	Turn on/off the auto focus function. (If the auto focus function is turned off, the autofocus is only activated for the first measurement.)
② START	Performs all procedures of automatic counting.
③ LOCK	Protects the alignment of stage from external shock when ADAM™ MC Plus is being moved. Lock ADAM™ MC Plus before turning it off or moving it.
④ EJECT	Ejects the slide holder from ADAM™ MC Plus. Functions as unload.
⑤ Sample	Check the sample to be measured and enter the name. Also enter the dilution factor.
⑥ Mode	Select the measurement mode. The default mode is 13 frames for fluorescence and the fast mode is 6 frames. Real cell size mode is a mode for measuring bright field images. Bead mode is for QC.

Getting started

Environmental requirements

⚠ CAUTION

At low temperature ($\leq 10^{\circ}\text{C}$), allow the device to warm up for 10 minutes at ambient temperature before use. Not recommended for cold room use ($\leq 4^{\circ}\text{C}$).

To ensure correct operation and stable performance, install the ADAM™ MC Plus in a location which meets the following conditions:

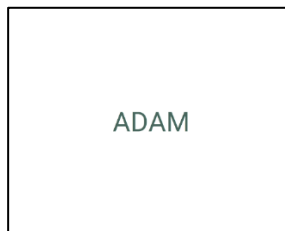
1. Use at room temperature between 20 and 35 °C
2. Do not expose the device to direct sunlight.
3. Do not subject the device to direct or continuous vibration.
4. Do not subject the device to intense magnetic or electromagnetic fields.
5. Do not install the device in high-humidity environment.
6. Location of device should be free from corrosive gases or other corrosive substances.
7. Ensure minimal contact with dust or other airborne particles.
8. Allow a 10 cm (4 inches) minimum space around the device for proper airflow.
9. Do not place any objects on top of the device.

Power on and Initial Display

1. Plug 12V power supply to the power port at the back of the instrument.
2. Press the power button in the front for 2~3 seconds to turn the instrument on.

If you get an error message, please contact your local distributor or sales@nanoentek.com.

If booting is successful and no errors are detected, the home screens will be displayed as below.



⚠ CAUTION

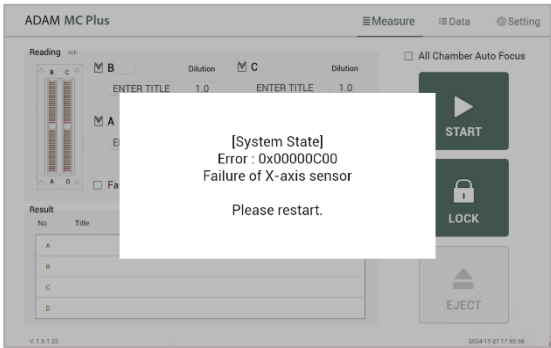
- Do not tilt the device too much in the forward when connecting the power cord.
- Do not move the device after connecting power cord.

When you connect the power cord to ADAM™ MC Plus even without power on the device, it will go through self diagnostic tests.

Getting started

Error messages during booting

[System State : Error]



If the "System State" error message appears, it indicates that the boot process was not completed properly.
To resolve this, press and hold the power button for at least 5 seconds to turn off the instrument. Wait until the instrument is completely turned off, and turn it back on by pressing and holding the power button for 2–3 seconds.
If this message still appears after restarting, contact your local distributor or sales@nanoentek.com.

Error code	Cause
0x00000C00	Failure of X-axis sensor
0x00007000	Failure of Y-axis sensor
0x00008000	Failure of Z-axis sensor
0x06000000	Failure of Locking module sensor

Getting started

Count setting

[Cell size]

The initial counting range is set between 3 and 80, but the size can be adjusted to customize the counting range.

Cell size

Min 3

Max 80

[Dilution factor]

If the sample was diluted before mixing with the MC Plus reagent, set the dilution factor here. For example, if the sample was diluted 3-fold, enter "3" as the dilution factor.

CAUTION

Factor values for the Cell viability reagent is already applied.

Dilution factor

1.0

CAUTION

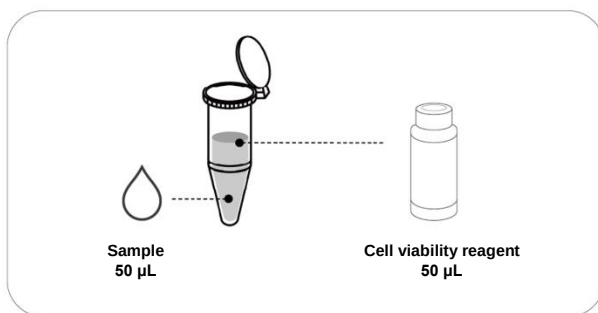
In Bead mode and QC mode, adjustments to [Cell size] and [Dilution factor] will not be applied.

General Operation

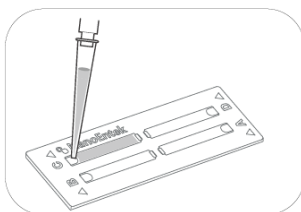
Quick Guide

Instruction is provided in this section for preparing the sample with Cell viability reagent for use with disposable AccuPlus Slide for automated cell count using the ADAM™ MC Plus. Please follow these steps to prepare samples and run tests. For more detailed information, please refer to the next page.

1. Mix the sample and the cell viability reagent at a 1:1 ratio. The recommended ratio is mixing 50µL of the sample with 50µL of the cell viability reagent. Then, mix thoroughly.



2. Take 15µL of the mixed sample and load it into each chamber of the AccuPlus slide. Wait for 1 minute on a flat surface to allow cells to settle.

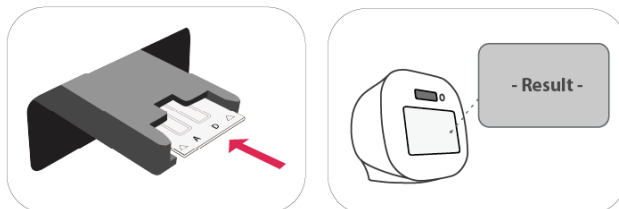


! CAUTION

1. This waiting step is essential for ensuring accurate measurements.
2. A chamber that has been loaded with a sample cannot be reused.

General Operation

3. Insert the AccuPlus Slide into the slide holder. Press the START button to begin the measurement and obtain the results.



Sample preparation

1. Cultivate the required number of cells.
NOTE Concentration out of this range will result in errors. Refer to page 20 for more information about errors.
2. Thoroughly mix the cell pellet by vortexing or pipetting.
3. Check visually if any cell clumps or agglomerates remain.

Cell counting



[AccuPlus Slide 4 ch]

Counting cell

- 1) Add 50 μL of your sample to 50 μL supplied Cell viability reagent.
- 2) Pipette or vortex the tube vigorously.
- 3) Load 15 μL sample mixture to the AccuPlus Slide A,B,C or D channel.
Then, wait 1 minute for settling down

NOTE When you load of the sample mixture to the AccuPlus Slide, take care to avoid creating bubbles.

General Operation

Cell counting

⚠ WARNING

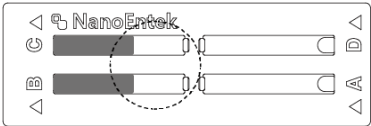
[Sample loading error]

When loading the sample into the AccuPlus Slide, ensure the correct volume of 15µL is used. Incorrect sample volumes, either too low or too high, may result in inaccurate results.

Correct volume

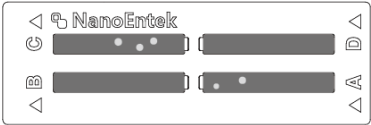


Low volume



⚠ CAUTION

Avoid bubbles which may negatively affect the result.



General Operation

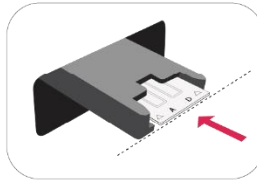
Cell counting

! **WARNING**

[AccuPlus Slide insert error]

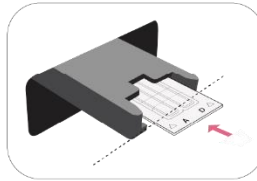
Completely insert AccuPlus Slide face up, in the direction of the arrow on the slide. The instrument will not detect if slides are inserted incorrectly.

See pictures below for proper insertion.



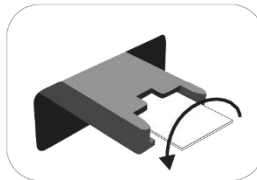
(O)

Correctly inserted



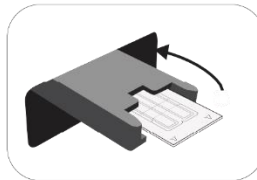
(X)

Not fully inserted



(X)

Upside down inserted



(X)

Wrong direction inserted

! **WARNING**

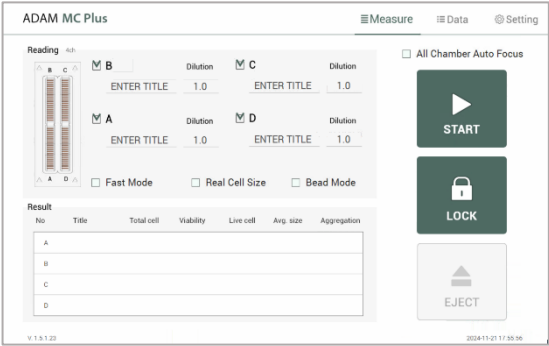
- Please insert or remove the AccuPlus Slide when the slide holder is fully ejected.
- When the test is finished, please remove the AccuPlus Slide from the slide holder.

Measure

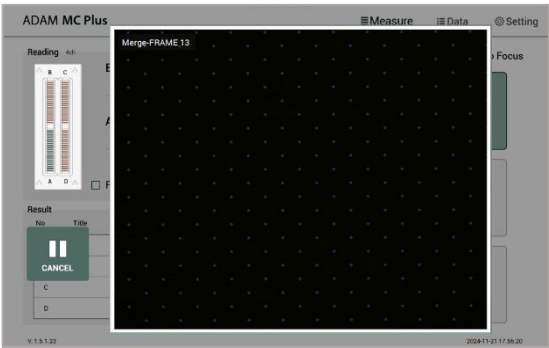
Run sample

Start counting process by pressing 'START'.

Upon the first measurement after turning on the instrument, the auto-focus function is applied automatically. If the "All Channel Auto Focus" option is selected, it may take approximately 3 minutes or longer to find the optimal focus for all chambers.



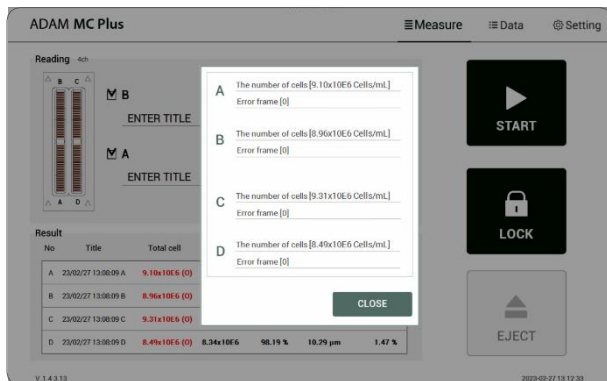
While the test is in progress, the merged channel image can be viewed in real time.



Measure

Result analysis

Based on the captured images, the ADAM™ MC Plus software automatically calculates the results and displays them in a simple pop-up.



* Examples of Results

Title	Number of Total cell	Number of Non-Viable cell	Viability
Viability 01	1.10E6	5.50E5	50%
Viability 02	2.20E6	5.50E5	75%

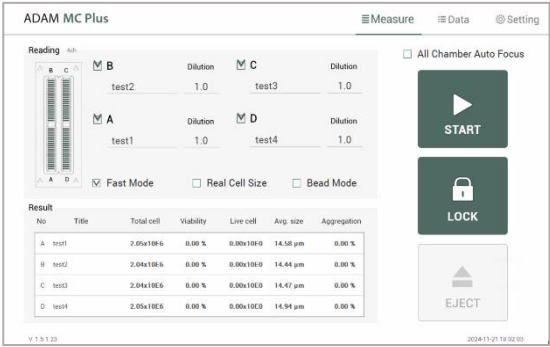
- The viability will be automatically calculated by the ADAM™ MC Plus software after each measurement of the total cells and the non-viable cells.
- First, the total cell count is measured, followed by the non-viable cell count. The cell viability is then calculated by subtracting the non-viable cell count from the total cell count.

NOTE

'Print' button will be automatically activated when portable printer (optional) is connected.

Measure

Result Analysis - Error code



Error code	Cause
E	Frames with errors are over 50% of total counting frame.
O	Cells are more than 2×10^7 cells/mL.
H	Cells are more than 4×10^6 cells/mL.
L	Cells are less than 4×10^5 cells/mL.
U	Cells are less than 5×10^4 cells/mL.
Error frame [#]	Frame with error that contains cells whose diameter is larger than 100µm. When this error shown in result window, please check the image.

Data

Data list

ADAM MC Plus

Measure Data Setting

Data List

Start Date: 2023 / 06 / 16
End Date: 2023 / 06 / 22

SEARCH

EDIT
IMAGE
SAVE
PRINT
MAIL
DELETE

All	ID	CH	Side	Sample	Total	Date/Time	Viability	Live	Dead	Avg. size
☐	0020	CH4	D	23/06/22 16:05:55.D	1.47x10 ⁰⁵	2023-06-22 16:05:26	81.14%	1.20x10 ⁰⁵	2.79x10 ⁰⁵ (L)	16.80µm
☐	0016	CH4	C	23/06/22 16:05:35.C	1.17x10 ⁰⁵	2023-06-22 16:05:36	80.61%	9.48x10 ⁰⁴	3.27x10 ⁰⁵ (L)	17.20µm
☐	0010	CH4	B	23/06/22 16:05:35.B	9.33x10 ⁰³	2023-06-22 16:05:35	93.98%	8.78x10 ⁰³	5.71x10 ⁰⁴ (L)	17.32µm
☐	0017	CH4	A	23/06/22 16:05:35.A	1.04x10 ⁰⁵	2023-06-22 16:05:35	95.80%	1.22x10 ⁰⁵	3.54x10 ⁰⁴ (L)	17.62µm
☐	0010	CH4	A	23/06/22 16:02:06.A	1.11x10 ⁰⁵	2023-06-22 16:02:06	77.61%	8.65x10 ⁰⁴	2.48x10 ⁰⁵ (L)	16.91µm
☐	0013	CH4	C	23/06/22 16:00:46.C	1.20x10 ⁰⁵	2023-06-22 16:00:46	81.18%	9.73x10 ⁰⁴	2.25x10 ⁰⁵ (L)	16.80µm
☐	0014	CH4	B	23/06/22 15:59:50.B	1.01x10 ⁰⁵	2023-06-22 15:59:50	91.72%	9.20x10 ⁰⁴	8.35x10 ⁰⁴ (L)	16.91µm
☐	0013	CH4	A	23/06/22 15:58:22.A	1.12x10 ⁰⁵	2023-06-22 15:58:22	79.21%	8.73x10 ⁰⁴	2.43x10 ⁰⁵ (L)	17.11µm
☐	0012	CH4	C	23/06/22 15:56:52.C	1.11x10 ⁰⁵	2023-06-22 15:56:52	85.08%	9.60x10 ⁰⁴	1.41x10 ⁰⁵ (L)	21.45µm
☐	0011	CH4	B	23/06/22 15:52:04.B	1.20x10 ⁰⁵	2023-06-22 15:52:04	89.08%	1.12x10 ⁰⁵	1.36x10 ⁰⁵ (L)	16.46µm
☐	0010	CH4	A	23/06/22 15:52:04.A	1.05x10 ⁰⁵	2023-06-22 15:52:04	94.79%	1.73x10 ⁰⁵	5.63x10 ⁰⁴ (L)	19.61µm

V.1.4.3.28

2023-06-22 16:44:50

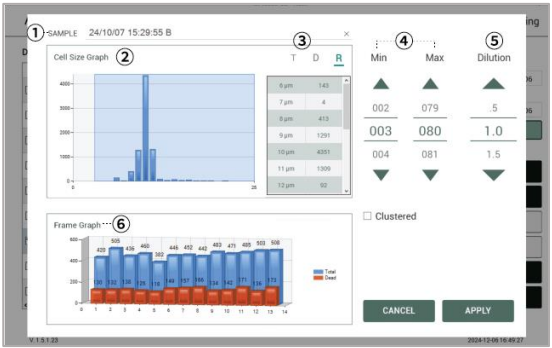
Control buttons	Description
① All	Select all data in Data List.
② SEARCH	Display the data of the selected date.
③ EDIT	View and edit the data. Multiple data can be edited with the same settings.
④ IMAGE	Check the cell images of each channel.
⑤ SAVE	Save the selected data to USB(PDF, Excel, Image).
⑥ PRINT (optional)	Prints the selected data.
⑦ MAIL	Send the Excel, PDF, and Image files of selected data to e-mail. Delete the selected data.
⑧ DELETE	Delete the selected data.

NOTE

'PRINT' button will be automatically activated when portable printer (optional) is connected

Data

EDIT



Control buttons	Description
① Sample	Edit the sample name.
② Cell size graph	Allows to view the cell size graph for each channel.
③ Cell size table	Allows to view the number of cells in each cell size. T=Total cell (AO), D=Dead cell (DAPI), R=Real cell size(Bright)
④ Cell size setting	Set the min/max size of the cell.
⑤ Dilution Factor	Set the dilution factor of sample. (Factor values for the Cell viability reagent is already applied.).
⑥ Frame graph	Allows to view the counted cell number of each frame.

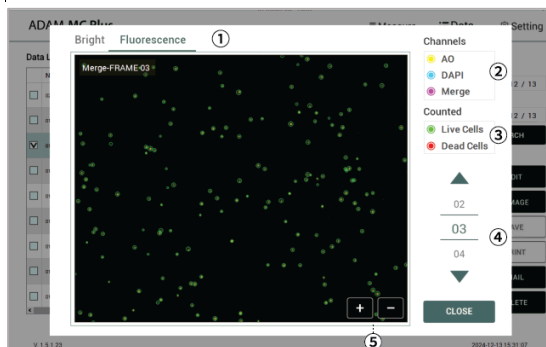


NOTE

After measurement, size range adjustment is available only in the R channel when Bead mode or Real size mode is selected. If neither mode is selected, adjustment is only available in the T (AO) channel. Cells excluded by the size range adjustment are highlighted with yellow squares in the image.

Data

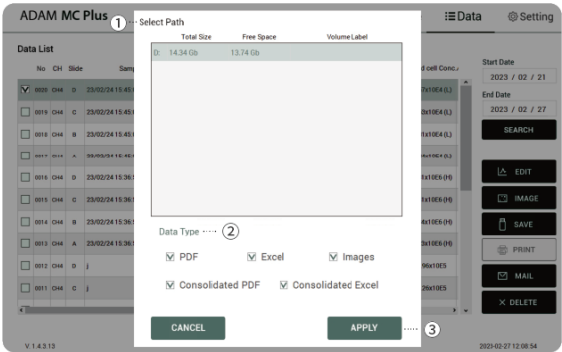
IMAGE



Control buttons	Description
① Select images	Select images measured in bright field or fluorescence.
② Original	Turn on/off AO, DAPI, and Merge to check channel image
③ Counted	Turn on/off Live, Dead cells to check counted cell image.
④ Frame	Select a frame number of the channel.
⑤ Zoom-in/out	Zoom in and out to check the cell image.

Data

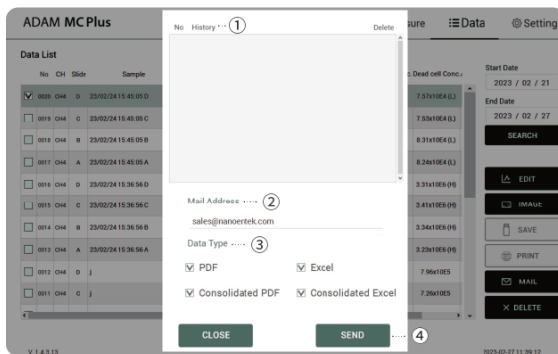
SAVE



Control buttons	Description
① Select Path	Selects save path from the list to send the selected data.
② Data Type	Selects which data type to save.
③ Apply	Exports the files to a selected save path <i>Files can be sent to only one save path at a time.</i>

Data

MAIL



Control buttons	Description
① History	Selects e-mail address from the list to send data. <i>The e-mail address where data has been sent will be saved.</i>
② Mail Address	To send files to new e-mail, enter the applicable e-mail address.
③ Data type	Selects which data type to send via e-mail.
④ Send	Send the files to selected e-mail address. <i>Files can be sent to only one e-mail at a time.</i>

Setting

Setting

ADAM MC Plus

MeasureDataSetting

Count Setting

① AccuChip

4Ch2Ch

② Cell size

Min3Max80

③ Dilution factor

1.0

⑤

④ Wifi

SETTINGREMOTE

⑥ Mail

SETTING

Software Version

V 1.5.1.23

Firmware Version

H 0.04 F 0.04_240411

⑦ UPDATE

Serial number

CRALDP230305-005

Date&Time

⑧

2024 / 12 / 05

PM 04 : 52

Capacity

7.7%

⑨

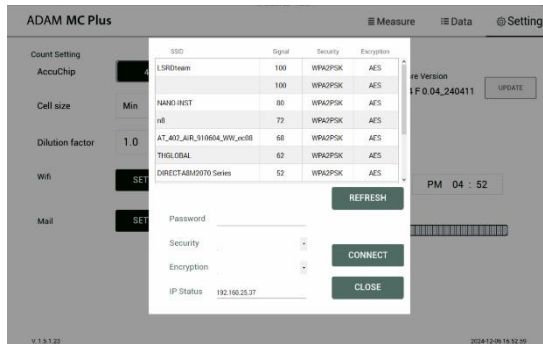
V 1.5.1.23

2024-12-05 16:52:33

Control buttons	Description
① AccuChip	Select AccuPlus slide type (2ch, 4ch) to use.
② Cell size	Set default values of cell size.
③ Dilution factor	Set default values of dilution factor.
④ Wifi	Sets the Wi-Fi to use the e-mail or remote support function.
⑤ Remote	Connects to remote support software.
⑥ Mail	For the sender's email address, DO NOT change the setting in mail.
⑦ Update	Updates firmware or software through USB. (Refer to page 37)
⑧ Date&Time	Sets current date and time.
⑨ Capacity	Checks remaining capacity.

Setting

Wifi

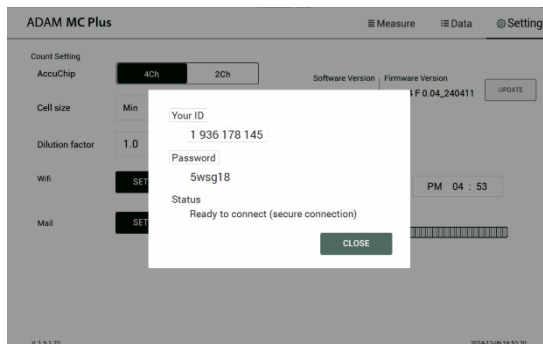


1. Click the Refresh button.
2. Select the wifi.
3. Insert the password of selected wifi.
4. Click the Connect button.

! CAUTION

If connection error occurs, please contact a laboratory facility manager

Remote support



1. Connect to wifi.
2. Click 'Remote support' button.
3. Share your ID and password to NanoEntek.

! NOTE

The remote support feature is to be used for maintenance only by request of NanoEntek.

! WARNING

If you do not see your Remote Support ID and Password, click the 'Close' and 'Remote Support' button again until they appear.

Setting

Update

1. Prepare the USB with update file.
2. Insert the USB.
3. Click the UPDATE button.

 CAUTION

- The 'AdamUpdate' folder must exist in the root path of the USB folder.
- ADAM™ MC Plus can be updated only when the firmware or software file exists in the 'AdamUpdate' folder. The 'ADAM™ MC Plus.exe' file should be in the 'AdamUpdate' folder.
- Do not rename the 'AdamUpdate' folder. The folder name should be 'AdamUpdate'.

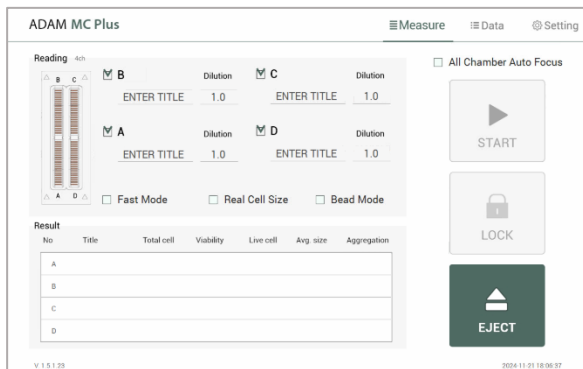
Power off

Lock

Press  LOCK before turning off the device.

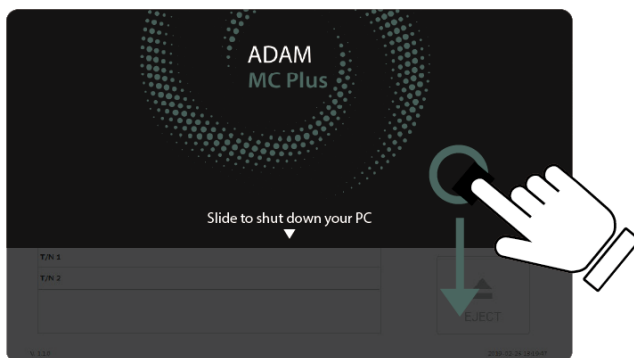
If there is no operation for 1 minute, the lock function will be activated automatically.

When the device is locked, the screen will be changed as shown below.



Power off

If you press the power button 2~3 seconds, then 'Slide to shut down your PC' message will appear. Slide down the screen to turn off the power.



Maintenance and cleaning

Maintenance and Cleaning

1. ADAM™ MC Plus does not need regular maintenance.
2. ADAM™ MC Plus has no replacement of consumable materials.
3. Please clean the exposed surface of ADAM™ MC Plus frequently or before testing, using a soft cloth and isopropyl alcohol or deionized water.

CAUTION

Dispose of wipes in an appropriately labeled solvent contaminated waste container.

Trouble shooting

Trouble shooting

Problem	Description	Solution
ADAM™ MC Plus does not power up	• No power from outlet • Bad power cord.	• Check power source. • Replace.
Inaccurate result	• Cell number may be out of range. • Cell viability reagent has expired. • Too high clumped cells.	• Adjust the number of cells to recommended concentration (refer to page 33). • Discard Cell viability reagent that have expired. Purchase the Cell viability reagent (refer to page 33). • Try again after vortexing the cells.
When error message is shown (For information on each error message, see page 20)	• When frames with errors are over 50% of total counting frame. (Error message: E)	• Check the suspension of cells if all cells are fully dissociated into single cells. • If contaminants except cells are found, prepare sample again.
	• High concentration of cells (Error message: H) • Over detection range (Error message: O)	• Check if concentration of cell is too high. • Dilute the sample and count again.
	• Low concentration of cells (Error message: L) • Under detection range (Error message: U)	• Check if concentration of cell is too low. • Use concentrated sample and count again.

Warranty

Warranty

If any defects occur in the ADAM™ MC Plus during one (1) year warranty period, NanoEntek will repair or replace the defective parts at its discretion without charge. The following defects, however, are specifically excluded:

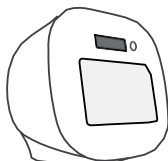
1. Defects caused by improper operation.
2. Repair or modification done by anyone other than NanoEntek or an authorized agent.
3. Damage caused by substituting alternative parts.
4. Use of fittings or spare parts supplied by anyone other than NanoEntek.
5. Damage caused by accident or misuse.
6. Damage caused by disaster.
7. Corrosion caused by improper solvent or sample.

For your protection, items being returned must be insured against possible damage or loss. NanoEntek cannot be responsible for damage incurred during shipment of a repair instrument. It is recommend that you save the original packing material in which the instrument was shipped. This warranty should be limited to the replacement of defective products.

For any inquiry or request for repair service,
Contact sales@nanoentek.com or your local distributor.

Technical specifications

Technical Specifications



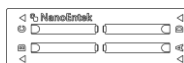
ADAM™ MC Plus	
Measuring range	$5 \times 10^4 \sim 2 \times 10^7$ cells/mL
Optimal range	$4 \times 10^5 \sim 4 \times 10^6$ cells/mL
Analysis time*	Please refer to following table.
Voltage	DC12V
Current	5A
Objective lens	4 X
LED	Green, Blue, UV
Camera	CMOS camera
Filter	Excitation filter, Dichroic filter, Emission filter
Weight	7 kg
Size (W×L×H)	277 × 276 × 270 mm
Degree of protection	IPX0

► Analysis time*

Mode (channel)	All Chamber Auto Focus (on)	All Chamber Auto Focus (off)	Captured Frames
Bead mode (BF/AO/DAPI)	8 min/slide		13 frames
Accuracy mode (AO/DAPI, Default)	3 min 30 sec/slide	1 min 30 sec/slide	13 frames
Real + Accuracy (BF/AO/DAPI)	6 min 30 sec/slide	5 min/slide	13 frames
Fast mode (AO/DAPI)	3min/slide	1 min/slide	6 frames

Operating environment condition

Temperature	$5\text{ }^{\circ}\text{C} \leq \text{Temperature} \leq 40\text{ }^{\circ}\text{C}$
Humidity	$20\% \leq \text{Humidity} \leq 80\%$
Altitude	Altitude $\leq 2,000$ m



AccuPlus Slide	
Loading sample vol.	15 μL /test
Measuring sample vol.	3.2 μL /test

Solutions

Cell viability Reagent	20 mL / bottle
------------------------	----------------

Storage temperature

AccuPlus Slide	$0 \sim 30\text{ }^{\circ}\text{C}$
Cell viability reagent	$2 \sim 8\text{ }^{\circ}\text{C}$

Expiration date

AccuPlus Slide	2 years
Cell viability reagent	1 year 2 months after opening

Product list

Product list

Cat. No.	Description	Contents
ADAM-MC Plus	Fluorescence cell counter	• Main device • User manual
APAD-400	Cell viability reagent	• 20 ml x 1 bottle (400 Tests) : Acridine orange (AO) & 4',6-diamidino-2-phenylindole (DAPI) stain
AP4S-100	AccuPlus Slide 4ch	• 4ch. Slide 100ea

► Accessories

Cat. No.	Description	Q'ty
QCS-002	QC slide (Optional)	1

Safety precautions

Review and follow the safety instructions below:

- If water or other material enters the instrument, the adaptor, or power inlet, disconnect the power cord and contact a service person. For operating environment, refer to Product Specifications.
- Do not touch the main plug or power cord with wet hands.
- Always ensure that the power supply input voltage matches the voltage available at your location.
- This instrument is air-cooled and its surfaces may become hot during operation. When installing, leave a space of more than 10 cm (4 inches) around the instrument and do not place any objects between the instrument and walls.
- Do not install an instrument on a slant or a place prone to vibrations, which induces the risk of malfunction or damage of the instrument.
- Never insert any objects into the air vents of the instrument as this can result in electric shock, personal injury, and equipment damage.
- Plug the power cord firmly into the wall outlet and AC adapter.
- To avoid potential shock hazard, make sure that the power cord is properly grounded.
- Be sure to position the instrument such that it is easy to disconnect.
- Turn off an instrument before unplugging the power cord and/or moving the instrument.
- If an instrument is dropped or broken, disconnect the power cord and contact a service person. The warrant will be void in case of disassembly.
- Use only authorized accessories (adaptor, power cord, and USB drive).



WARNING

Class A equipment is intended for use in an industrial environment. In the documentation for the user, a statement shall be included drawing attention to the fact that there may be potential difficulties in ensuring electromagnetic compatibility in other environments, due to conducted as well as radiated disturbances.

Mesures de sécurité

Examiner et suivre les instructions en matière de sécurité ci-dessous:

- Si de l'eau ou d'autres matières entrent dans l'instrument, l'adaptateur, ou l'entrée de la prise, débrancher le cordon d'alimentation et contacter un technicien de service. Pour l'environnement d'exploitation, se reporter aux Spécifications du Produit.
- Ne pas toucher la prise principale ou le cordon d'alimentation avec les mains mouillées.
- S'assurer toujours que la tension d'alimentation correspond à la tension disponible à votre localisation.
- Cet instrument est refroidi à l'air et ses surfaces peuvent devenir chaudes pendant le fonctionnement. Lors de l'installation, laisser un espace de plus de 10 cm (4 pouces) autour de l'instrument et ne placer aucun objet entre l'instrument et les murs.
- Ne pas installer d'instrument sur une pente ou un endroit sujet aux vibrations, qui entraînent un risque de défaillance ou de détérioration de l'instrument.
- Ne jamais insérer d'objets dans les événements d'air de l'instrument, car cela peut causer des chocs électriques, des blessures corporelles et des dommages de l'instrument.
- Mettre le cordon d'alimentation fermement dans la prise murale et l'adaptateur courant alternatif.
- Pour éviter tout risque de choc, s'assurer que le cordon d'alimentation est correctement mis à la terre.
- S'assurer de positionner l'instrument de telle sorte qu'il soit facile à débrancher.
- Éteindre l'instrument avant de débrancher le cordon d'alimentation et/ou de le déplacer.
- En cas de chute ou de rupture d'un instrument, débrancher le cordon d'alimentation et contacter un technicien de service. La garantie sera annulée en cas de démontage.
- Utiliser uniquement les accessoires autorisés (adaptateur, cordon d'alimentation et clé USB).



AVERTISSEMENT

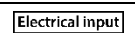
L'équipement de classe A est destiné à être utilisé dans un environnement industriel. Dans la documentation pour l'utilisateur, une déclaration doit être incluse pour attirer l'attention sur le fait qu'il peut y avoir des difficultés à assurer la compatibilité électromagnétique dans d'autres environnements, en raison de perturbations aussi bien conduites que radiées.

Safety symbols

Safety symbols

The following symbols are found on the instrument and this document.

Always use the equipment in the safest possible manner.

Symbol	Meaning
	Caution & Warning
	Protective earth (Ground)
	Power On/Off
	The moving parts symbol indicates areas of the medical device in which moving parts can cause injuries. Do not operate the medical device with the door open.
	This instrument has been tested and found to comply with the limits for a Class A digital medical device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the instrument is operated in a commercial environment. This instrument generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this instrument in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
	This instrument and consumables conforms to the EC Declaration of Conformity.
	USB Connection
	This product conforms to UL 61010-1, CAN/CSA C22.2 No.61010-1 "Safety Requirements for Electrical Instrument for Measurement, Control, and Laboratory Use, Part I: General Requirements." This instrument bearing the TÜV symbol are certified by TÜV Product Services to be in conformance with the applicable safety standard for the US and Canada.
	Catalogue number/Reference number
	Serial number
	Manufacturer
	European Corporation
	Electrical input
	US Corporation
 www.nanoentek.com/eifu.php	Consult Instructions for Use An electronic instructions for us (eLFU) indicator (website address) may accompany the symbol when used to indicate an instruction to consult an eLFU.

	Disposal of your old appliance 1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2012/19/EU. 2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities. 3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health. 4. For more detailed information about disposal of your old appliance, please contact local distributor, waste disposal service or call the number listed in the manual.
	LED
	Physician. Keep dry Keep away from rain
	Fragile, handle with care
	This way up
	General symbol for recover/recyclable
	Team lift
US Corporation	US Corporation
EC REP	Authorized representative in the European community
UK Representative	Authorized representative in United Kingdom
CH REP	Authorized representative in Switzerland
BRH	Authorized representative in Brazil

Warnings

Warning

1. After using device, please turn off main power.

If not, it may cause malfunction or may reduce product life.

2. When turning off the device, be sure to lock the device with Lock button.

If not, it may cause mechanical problem or error message when device is booting.

Item	Warning
Battery inside device	• Risk of explosion if battery is replaced incorrectly. • This battery is not replaceable by user. Refer to an authorized service person.
Cover	• Do not remove cover or dissemble case. There are no adjustable components inside the instrument. • If a malfunction is found, refer to an authorized service person.
Manual	• Do not attempt to service the equipment. • This manual is only available in English. • Failure to heed warnings may result in injury to service provider or operator.
Sample handling	• Wear personal protective equipment during sampling and testing. • Sample may contain infectious or bio-hazardous agents. • Use capped tubes and lint free wipes. Lint free wipes to be used one time and discarded.
Waste	• After using AccuPlus Slide, appropriately dispose as bio-hazardous waste. • Do not reuse AccuPlus Slide.

Technical support

Visit our Website at www.nanoentek.com for:



- Technical resources, including manuals, FAQs, etc.
- Technical support contact information
- Additional product information and special offers

For more information or technical assistance, please call or email.

NanoEntek, Inc.

851-14, Seohae-ro, Paltan-myeon, Hwaseong-si,
Gyeonggi-do, 18531, 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

Email

sales@nanoentek.com

Website

www.nanoentek.com

ADAM MC Plus

NESMU-AMCP-001E(V.1.0)



NanoEntek, Inc.

851-14, Seohae-ro, Paltan-myeon, Hwaseong-si
Gyeonggi-do, 18531, Korea
Tel: +82-2-6220-7940
Fax: +82-2-6220-7999

US Corporation

NanoEntek America, Inc.

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

European Corporation

NanoEntek Europe | med-tech supplies GmbH

Lochhamerstr. 4a, 82152 Martinsried, Germany
Tel: +49-89-21-55-38-43 / Fax: +49-89-99-95-46-60

E-mail

sales@nanoentek.com

Website

www.nanoentek.com