

CHAYON

VANTastar

2024. 06. 27.



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사양

품번	품명
BG421-101	VANTAstar with Monochromator for FI + FRET, 320 - 740 nm, no filters
BG421-110	Bottom Optic (suitable for FI, FP, TRF, and L methods, if option is ordered)
BG421-120	UV/Vis Absorbance Spectrometer (220 - 1000 nm)

- 형광: Black plate
- 흡광: Clear plate



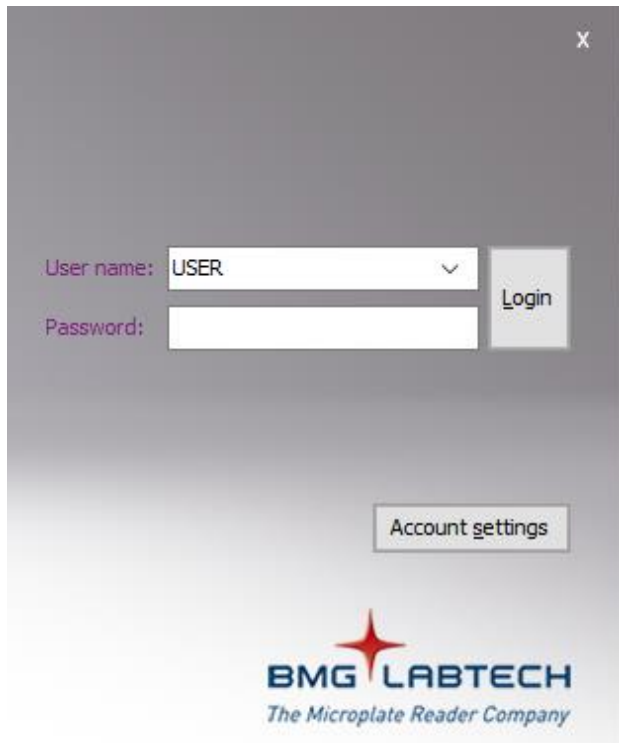
VANTastar - Fluorescence

2024. 06. 27.

자연과학(주), 연락처 02-3471-4100



프로토콜 작성: 모드



1. PC, 기기 켭니다.
2. VANATAstar software를 double click 합니다.
3. "USER" (비번 없음) 선택 후, Login 합니다.
4. 기기가 initialize 되는 소리를 듣습니다.
5. Firmware version과 SN를 자동 인식합니다.

프로토콜 작성: 모드

1. Manage Protocols 선택합니다.
2. New를 선택합니다.
3. Fluorescence 선택합니다.
4. Endpoint, Plate mode (slow kinetic), well mode 실험 목적에 따라 선택 후, OK 순서로 선택합니다.

1. Manage Protocols 선택합니다.

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Protocol Name	Method	Mode	Optic	Microplate
FITC 96 Mono	Fluorescence Intensity	Endpoint	Top	COSTAR 96 HALF AREA
O2RampingExampleProt	Fluorescence Intensity	Plate mode	Top	BMG LABTECH 96
ORAC 1 Injection	Fluorescence Intensity	Plate mode	Bottom	SBS STANDARD 96
Transcreeper ADP2FI	Fluorescence Intensity	Endpoint	Top	GREINER 384 SMALL VOLUME
Alexa 594 Em Scan	Fluorescence Intensity	Spectral scan	Top	GREINER 384 SMALL VOLUME
Alexa 594 Ex Scan	Fluorescence Intensity	Spectral scan	Top	GREINER 384 SMALL VOLUME
Alexa 633 Em Scan	Fluorescence Intensity	Spectral scan	Top	GREINER 384 SMALL VOLUME
Alexa 633 Ex Scan	Fluorescence Intensity	Spectral scan	Top	GREINER 384 SMALL VOLUME
Scan Fluorescein Em	Fluorescence Intensity	Spectral scan	Top	BMG LABTECH 96
Scan Fluorescein Ex	Fluorescence Intensity	Spectral scan	Top	BMG LABTECH 96

프로토콜 작성: 형광 모드 (Endpoint)

Fluorescence Intensity - Endpoint

Basic Parameters | Layout | Concentrations & Volumes | Shaking

Protocol name: 1. Transcreener ADP?FI

Microplate: GREINER 384 SMALL VOLUME

Optic 2. ☒ Top optic ☐ Bottom optic

Comment

▲ Standard

Optic Settings

No. of multichromatics (1...5): 1 +

☐ Well multichromatics

3. Presets: Alexa Fluor 594 *

Excitation: 577-26 Dichroic: 604.5 Emission: 641-44

General Settings

Settling time (0.0...1.0 s): 0.1

☐ Flying mode

No. of flashes 4. (0...200): 100

Well Scan

None

☐ Pause before plate reading for 0 seconds

Check timing ☐ Use enhanced dynamic range

Start measurement OK Cancel Help

1. 제목을 입력합니다.
2. Top 또는 Bottom optic을 선택합니다.
3. 파장을 선택합니다.
4. 측정 회수와 시간, flash number를 입력합니다

프로토콜 작성: 형광 모드 (Plate mode)

Fluorescence Intensity - Plate Mode

Basic Parameters | Layout | Concentrations & Volumes | Shaking

Protocol name: 1. NEW TEST

Microplate: GREINER 384 SMALL VOLUME

Optic 2. ☒ Top optic ☐ Bottom optic

Comment

Optic Settings

No. of multichromatics (1...5): 1 +

☐ Well multichromatics

Presets: 3. Alexa Fluor 488

Emission: 535-30

General Settings

Settling time (0.0...1.0 s): 0.1

☐ Flying mode

No. of kinetic windows (1...4): 1 →

Kinetic Window 1 4.

No. of cycles (1...1000): 1

No. of flashes (0...200): 20

Cycle time (1...10000 s):

☐ Pause before plate reading for 0 seconds

Start measurement OK Cancel Help

1. 제목을 입력합니다.

2. Top 또는 Bottom optic을 선택합니다.

3. 파장을 선택합니다.

측정 회수와 시간, flash number를 입력합니다.

*** Kinetic window는 앞서 선택한 plate mode 선택시 생성.

** Cycle time: 첫 측정 well로 돌아오는, 반복 시작 시간 간격

프로토콜 작성: 형광 모드 (Well mode)

Fluorescence Intensity - Well Mode

Basic Parameters | Layout | Concentrations & Volumes | Shaking

Protocol name: 1. NEW TEST

Microplate: GREINER 384 SMALL VOLUME

Optic 2. ☒ Top optic ☐ Bottom optic

Comment

Optic Settings

No. of multichromatics (1...5): 1 +

Presets: 3. Cy3

Excitation: 530-20 Dichroic: auto 552.5 Emission: 580-30

Well Scan

None

General Settings

Setting time (0.0...1.0 s): 0.1

No. of kinetic windows (1...4): 1 →

Kinetic Window 1 5.

Measurement start time (0...1200 s): 0.0 → 측정 시작 시간을 입력합니다.

No. of intervals (1...1000): 1 → 측정 반복 횟수를 입력합니다.
e.g. 180회 반복
e.g. flash no 입력

No. of flashes (0...200): 20

Interval time (0.01...100 s): → e.g. 0.5초 간격으로 반복 측정합니다.

End time of kinetic window 1 (s): 0.5 → $180(\text{회 반복}) \times 0.5(\text{초 간격}) / \text{well} = 90 \text{ 초/well}$

Min. interval time:

Pause before - for 0 seconds

Check timing ☒ Use enhanced dynamic range

Start measurement OK Cancel Help

프로토콜 작성: 형광 모드 (Spectral mode)

Fluorescence Intensity - Spectral Scan

Basic Parameters | Layout | Concentrations & Volumes | Shaking

Protocol name: 1. NEW TEST

Microplate: GREINER 384 SMALL VOLUME

2. Optic
☒ Top optic ☐ Bottom optic

3. Optic Settings
Monochromator settings:


General Settings
Settling time (0.0...1.0 s): 0.1

4. Measurement start time (0...1200.0 s): 0.0
No. of flashes (0...200): 20

Comment

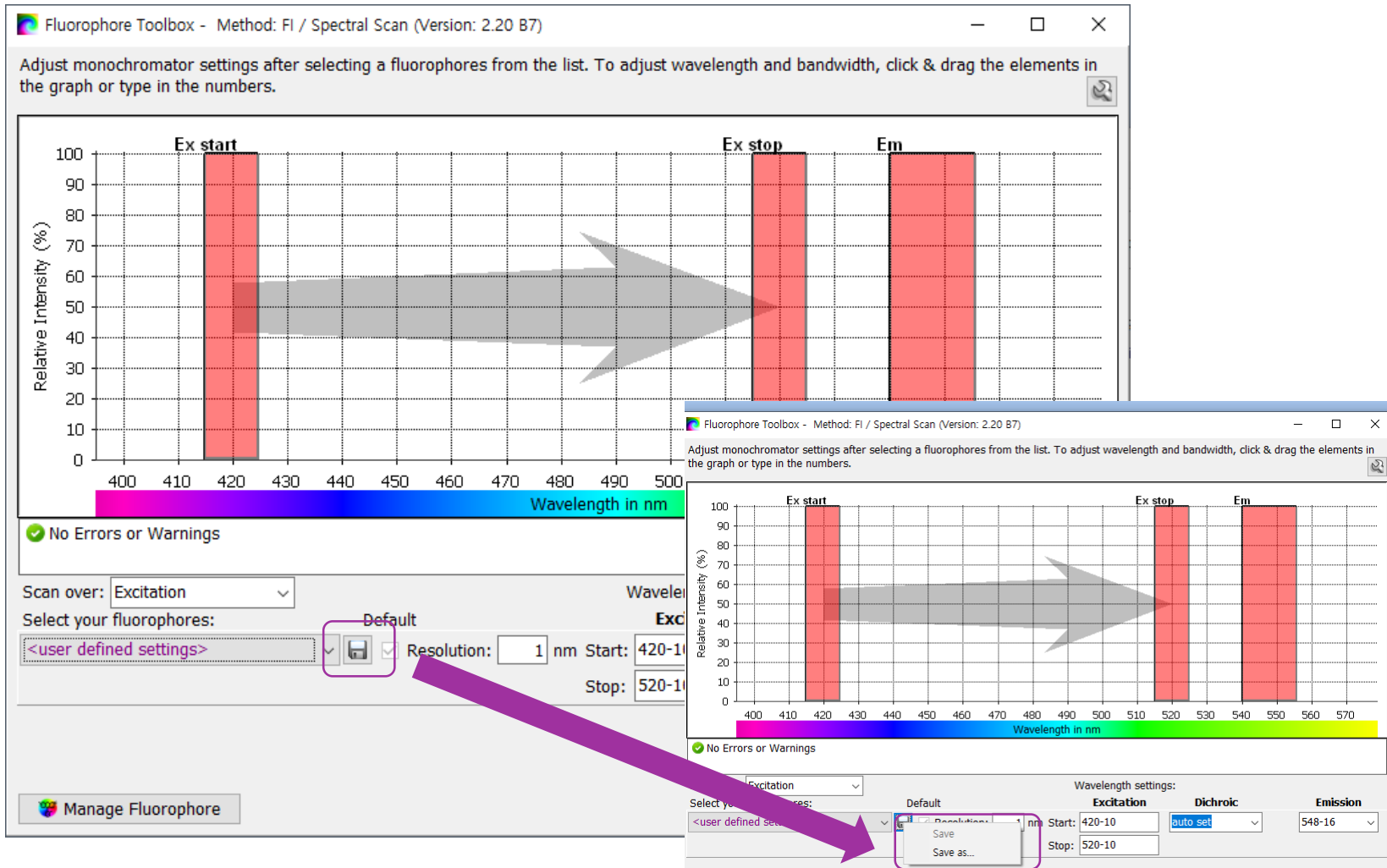
☐ Pause before plate reading for 0 seconds

Check timing Start measurement OK Cancel Help

1. 제목을 입력합니다.
2. Top 또는 Bottom optic을 선택합니다.
3. 파장을 선택합니다. (다음 슬라이드 참조)
4. 측정 회수와 시간, flash number를 입력합니다

프로토콜 작성: 형광 모드 (Spectral mode)

- 모르는 형광 물질의 파장을 확인할 때 사용합니다.
- Excitation과 Emission을 각각 확인합니다.
- Save as 를 이용하여 형광 물질 이름을 입력합니다.



프로토콜 작성: Plate layout

1. Layout 선택 → Sample 선택합니다.
2. 우측 화면에서 시료가 담긴 Well을 선택 후 OK 선택합니다.

Luminescence - Endpoint

Basic Parameters **Layout** Concentrations & Volumes Shaking

Content: 1.

Sample Blank Standard
Control Pos.Ctrl. Neg.Ctrl.
Empty

Groups
☐ On

Index
Start value: 97
☐ Constant ☒ Increase

Replicates
Number: 1
☒ Horizontal ☐ Vertical

Reading direction:

96	1	2	3	4	5	6	7	8	9	10	11	12
A	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
B	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23	X24
C	X25	X26	X27	X28	X29	X30	X31	X32	X33	X34	X35	X36
D	X37	X38	X39	X40	X41	X42	X43	X44	X45	X46	X47	X48
E	X49	X50	X51	X52	X53	X54	X55	X56	X57	X58	X59	X60
F	X61	X62	X63	X64	X65	X66	X67	X68	X69	X70	X71	X72
G	X73	X74	X75	X76	X77	X78	X79	X80	X81	X82	X83	X84
H	X85	X86	X87	X88	X89	X90	X91	X92	X93	X94	X95	X96

2.

Check timing ☒ Use enhanced dynamic range Start measurement **OK** Cancel Help

프로토콜 작성: 모드

Fluorescence Intensity - Plate Mode

Basic Parameters | Layout | Concentrations & Volumes | **Shaking** | Output

Shaking Actions

1.

Shaking 1

2.

Shake: Shake between readings ▾

Shake mode: Double orbital ▾

Frequency: 700 rpm ▾

Cycle(s): all cycles

Time: remaining time between cycles

3.

On / off time (s): 60 / 60

+ -

1. Shaking 선택합니다.
2. 각 조건 선택합니다.
3. OK를 누릅니다.

Check timing Start measurement **OK** Cancel Help

프로토콜 작성: 바로가기 아이콘 생성

1. New Button 선택합니다.
2. 앞서 작성한 Protocol Name 선택 후 OK 선택합니다.
3. 생성된 Protocol 확인합니다.

1.

3.

2.

Protocol Name	Method	Mode	Optic	Microplate
DLR	Luminescence	Well mode	Top	SBS STANDARD 96
Lbase Test	Luminescence	Endpoint	Top	COSTAR 96
Nano DRL F	Luminescence	Endpoint	Top	GREINER 96 F-BOTTOM
test	Luminescence	Endpoint	Top	GREINER 96 F-BOTTOM

4.

프로토콜 작성: 시작 (선택), Height Adjustment

1. Focus: Default focal height (11 mm) Auto focus Default focal height (11 mm) New focal height...

Dynamic range: Default focal height (11 mm) New focal height...

Start Measurement - Nano DRL F

Focus and Dynamic Range / Plate IDs Sample IDs Dilution Factors Crosstalk Determination

Change layout

96	1	2	3	4	5	6	7	8	9	10	11	12
A	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
B	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23	X24
C	X25	X26	X27	X28	X29	X30	X31	X32	X33	X34	X35	X36
D	X37	X38	X39	X40	X41	X42	X43	X44	X45	X46	X47	X48
E	X49	X50	X51	X52	X53	X54	X55	X56	X57	X58	X59	X60
F	X61	X62	X63	X64	X65	X66	X67	X68	X69	X70	X71	X72
G	X73	X74	X75	X76	X77	X78	X79	X80	X81	X82	X83	X84
H	X85	X86	X87	X88	X89	X90	X91	X92	X93	X94	X95	X96

2. X59

Focus: New focal height...

Dynamic range: Enhanced dynamic range (EDR)

Monochromator / Filter Settings Gain

1 S80-80 auto

Focus Adjustment

Focal height (0...25.0 mm): 11.0

4.

1. New focal height를 선택합니다.

2. Signal 가장 높게 예상되는 well을 선택합니다.

3. Start Adjustment를 선택합니다.

4. Focal height가 설정됩니다.

5. Start measurement를 선택합니다.

Raw result:

Start Adjustment Stop Adjustment

Status:

Plate Identification

ID1: <protocol> ID2: <date>, <time> ID3: <1+####>

Automatically enter the plate IDs previously used with this protocol

No. of executed runs since program start: 0 Total no. of executed runs: 0

Aperture 96/384 recommended

Delay: 0 s Start measurement Save & Close Cancel Help

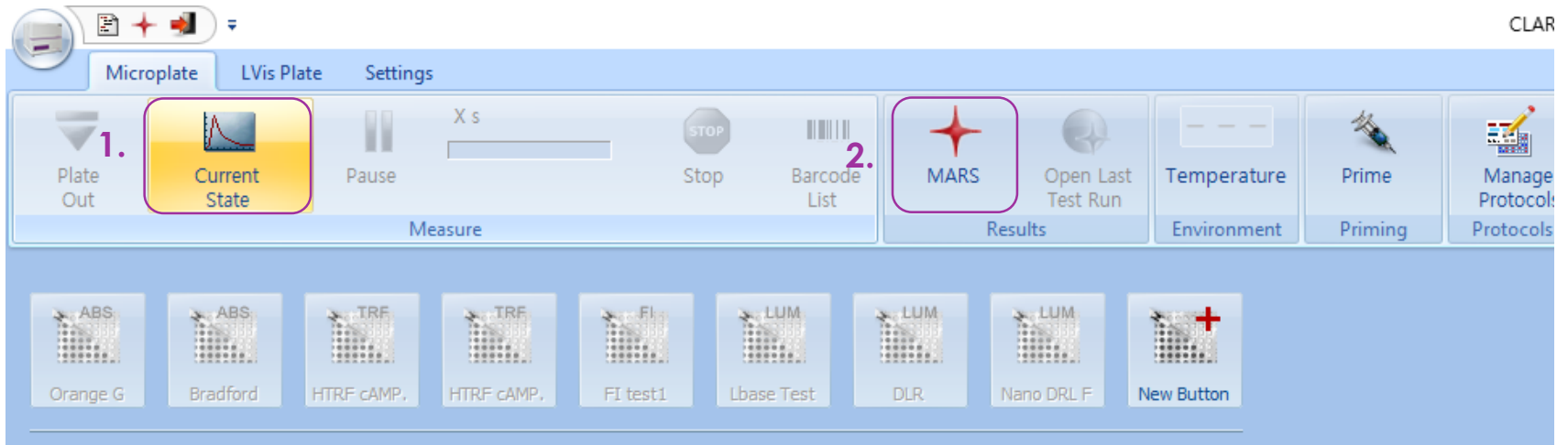
*** New Focal height 선택시에만 Adjustment를 수행할 수 있습니다.

*** 이미 이 기능을 수행한 protocol은 바로가기 생성된 protocol start 선택시 이 단계 없이 바로 측정을 시작합니다.

프로토콜 작성: 형광 모드, Gain Adjustment

- Kinetics mode: 샘플과 같은 농도의 형광물질이 포함된 blank well 선택 후, target value를 10%로 set 합니다.
- As all the samples except blank have the same concentration of fluorophore in them at the beginning you should set gain at 10% required value and then do a gain adjustment on any well that has the fluorophore. This will set the initial value at roughly 26000 (10%) of the full range for the first reading
- As the fluorescence increases then the window will show values until it gets to 260,000 so you have a big window to work with.

프로토콜 작성: 시작과 결과 확인



1. 실시간 결과 확인할 수 있습니다.
2. 결과 측정 후, MARS 아이콘을 선택하여 결과를 확인할 수 있습니다.

결과 확인: MARS

LB2 - CLARIOstar MARS

File Home View Calculations Templates Layout Formats and Settings

Open Close Define Print Report Quick Print Export Excel Report Close All Sign Change User Wizard Calculations Ranges Export Table to Excel Export Table to ASCII Manage Wavelengths Layout Add Bar Chart Templates Add Button

Navigation / Data Selection

Available Data

- LB2 (66)
 - Test Settings
 - Layout
 - Data
 - Raw Data
 - F: 450-80 [1]
 - F: LP 610 [2]
 - Calculations
 - Ratio
- LB2 (70)

Test Name: LB2
ID1: LB2; ID2: 2019-10-24, 오전 11:48:16
Luminescence

Display Mode: ☒ Values ☐ Legend in I

Excel Report Settings

Select Page for Export

- ☒ Microplate View
- ☐ Table view
- ☐ Transpose table (swap rows and columns)
- ☐ Fit results
- ☒ Protocol information
- ☐ Microplate as bitmap
- ☐ Bar chart as bitmap
- ☐ Signal curve as bitmap
- ☐ Scan curve as bitmap
- ☐ Standard fit curve as bitmap

Common Excel Export Settings

- ☐ Use one workbook for each page
- ☒ Add test run information Position: above data

Microplate View Excel Export Settings

- ☐ Export all cycles/intervals
- ☐ Export data for each cycle/interval in a separate excel sheet
- ☒ Export data for all cycles/intervals in one excel sheet (one below the other)
- ☐ Export detailed well scan data

Export report to Excel Cancel OK Help

	7	8
36	1.93	
33	5670400	75
30	10916	
31	1.52	
26	2471646	23
27	2746	

결과 확인: 엑셀 전환 결과 예시

Path: C:\Program Files (x86)\BMGW\CLARIOstar\User\Data													
Test ID: 69													
Test Name: LBase Test													
Date: 2019-10-24													
Time: 오후 12:10:26													
ID1: LBase Test													
ID2: 2019-10-24,오후 12:10:26													
ID3: 00008													
Luminescence													
1. Ratio based on Raw Data and Raw Data (calculated)													
	1	2	3	4	5	6	7	8	9	10	11	12	Input data 1 divided by Input data 2 Used data: Input data 1 Wavelength: 656-90 [2] Input data 2 Wavelength: 460-40 [1] Multiplication factor: 1000
A	2.36	2.48	2.3	2.32	1.96	1.85	1.92	1.77	17.27	18.23	17.92	18.15	
B	2.66	2.26	2.53	2.17	1.68	1.58	1.93	2.32	10.07	16.65	10.61	30.3	
C	2.38	1.69	2.14	1.91	1.81	1.67	2.07	1.52	2.05	2.08	2.09	2.05	
D	2.2	2.02	2.1	2.27	1.86	1.67	1.92	1.67	19.28	25.21	34.87	21.43	
E	14.31	12.47	12.37	12.27	2.36	2.1	1.88	2.05	10.62	37.38	32.26	41.53	
F	13.75	13.12	12.76	11.26	2.2	1.41	3.21	2.78	22.77	47.88	51.92	55.56	
G	4.23	4.36	4.11	3.4	2.34	2.16	1.66	2.02	18.13	112.27	363.28	146.76	
H	6.38	6.13	5.2	5.79	2.32	1.69	2.28	2.37	30.73	66.47	65.04	247.31	
2. Raw Data (656-90 2)													
	1	2	3	4	5	6	7	8	9	10	11	12	
A	2050	2086	1916	1776	1586	1500	1550	1400	6060	6350	6663	7113	
B	713	590	696	563	450	413	500	586	36	40	26	60	
C	466	320	406	366	360	336	413	313	773	753	813	793	
D	1463	1336	1426	1426	1266	1183	1333	1120	66	50	56	30	
E	4783	4223	4306	4046	866	796	733	736	23	40	23	26	
F	543	503	493	403	86	56	123	113	23	26	23	20	
G	1210	1280	1146	933	663	636	480	566	20	43	93	43	
H	833	796	653	740	286	210	293	290	26	23	16	46	
3. Raw Data (460-40 1)													
	1	2	3	4	5	6	7	8	9	10	11	12	
A	868880	842106	831516	765633	807210	811270	807973	792040	350976	348236	371716	391856	
B	267823	261243	274663	259633	267590	260670	259330	252643	3576	2403	2450	1980	
C	195413	189720	189816	191823	199370	201433	199410	205323	376510	361853	388576	385900	

결과 확인: MARS, pdf 전환

LB2 - CLARIOstar MARS

File Home View Calculations Templates Layout Formats and Settings

Open Close Define Print Report Quick Print Export Excel Report Sign Change User Wizard Calculations Ranges Export Table to Excel Export Table to ASCII Manage Wavelengths Layout Add Bar Chart Templates Add Button

Navigation / Data Selection

Available Data

- LB2 (66)
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 - F: 450-80 [1]
 - F: LP 610 [2]
 - Calculations
 - Ratio
- LB2 (70)

Test Name: LB2
ID1: LB2; ID2: 2019-10-24, 오전 11:48:16
Luminescence

Define Print Report

Printer Settings

Print orientation: ☐ Landscape ☒ Portrait

Print destination: PDF File

Available Print Objects:

- Microplate View
- Table View
- Protocol Information
- 21 CFR part 11
- Comment
- Detailed Information of:
 - Blank corrected based on Raw Data (485/535)
 - Spacing
 - Horizontal line
 - Image

Selected:

- OneNote
- 복사기
- OneNote 2013으로 보내기
- Microsoft XPS Document Writer
- Microsoft Print to PDF
- HP Color LaserJet CP3525 PCL6 Class Driver
- Hewlett-Packard HP LaserJet P2035
- Hancom PDF
- Fax
- PDF File
- HTML File(s)

Page No.: 1 of 2

Preview Mode: High Quality Speed

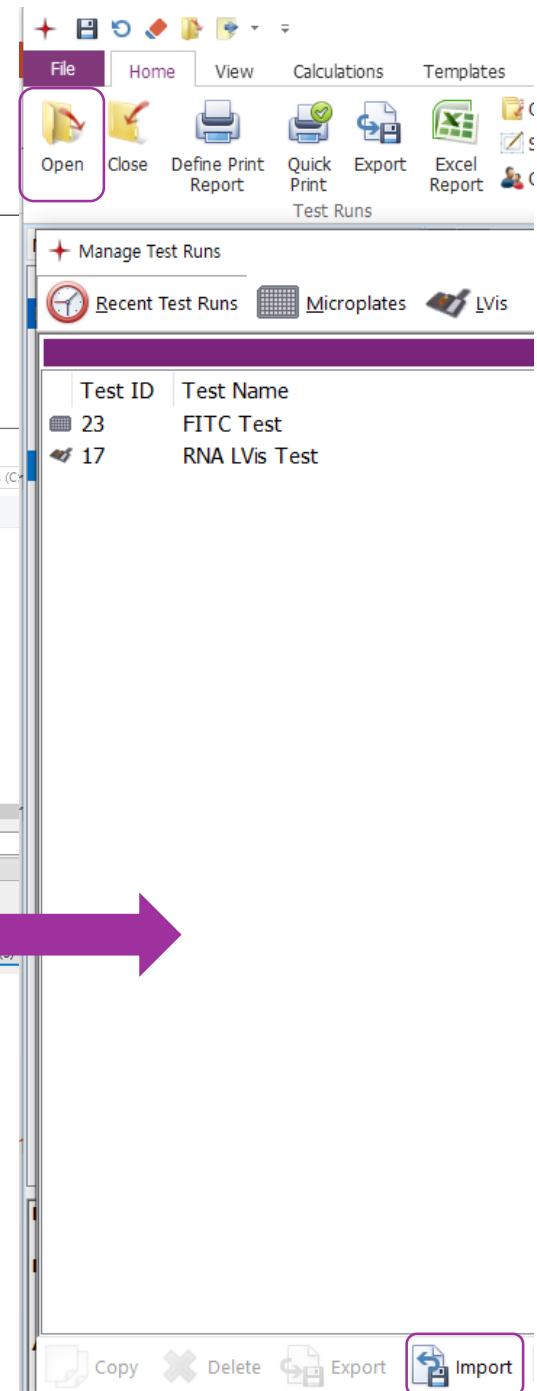
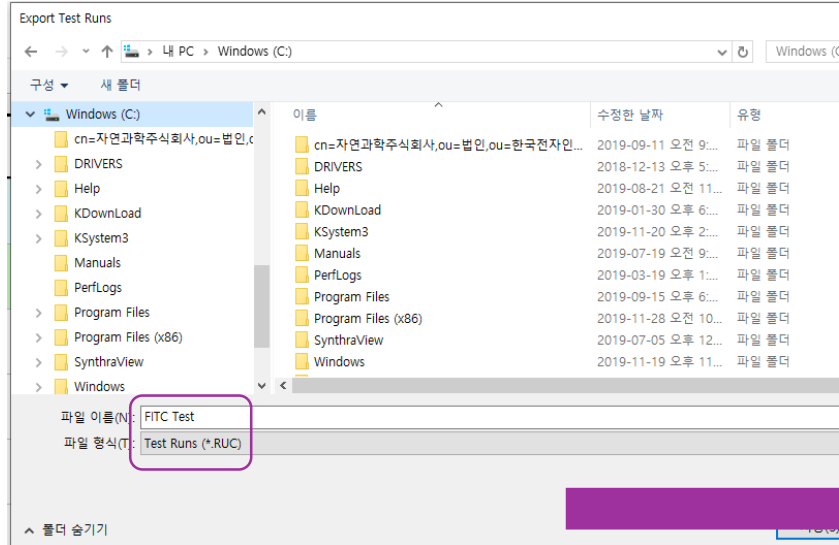
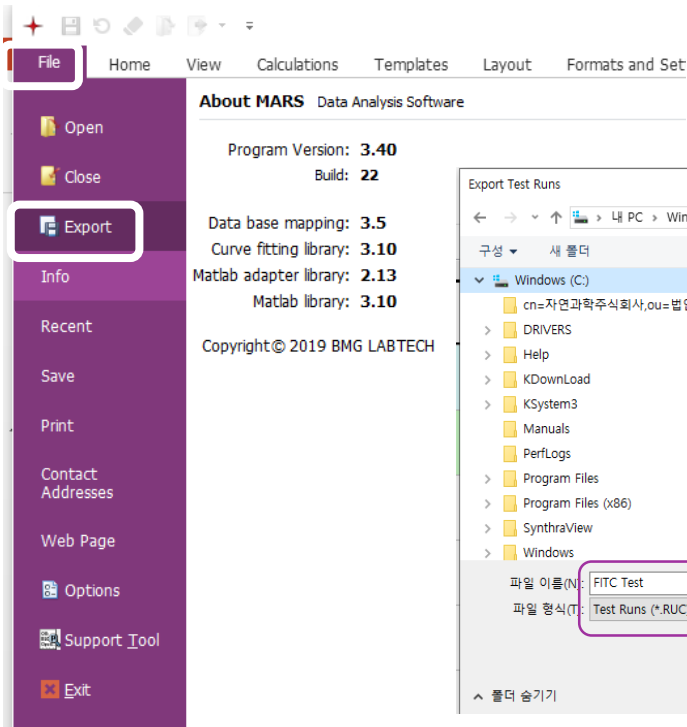
☒ Open PDF file after creating.

Header / Footer Print Settings... Page Setup... Print pages: Save as PDF Close Help

1. Pdf 인쇄 원하는 내용을, 좌측에서 우측으로 보내어 선택합니다.
2. 저장 형식을 선택 후, 저장 경로 지정하여 결과를 저장합니다.

	7	8
6	1.93	
3	5670400	75
0	10916	
1	1.52	
6	2471646	23
2	2746	

다른 PC에서 결과 분석



1. MARS: File → Export → 저장 (*.RUC)
2. MARS: Open → Import → 저장 경로에서 File 선택



VANTastar – Absorbance, Kinetic assay



프로토콜 작성: 모드

1. Manage Protocols 선택합니다.
2. New를 선택합니다.
3. Abs, Plate mode (slow kinetic), OK 순서로 선택합니다.

The screenshot shows the CHAYON software interface with the 'Manage Protocols' dialog box open. The 'Measurement Method and Mode' dialog box is also open, showing the 'Absorbance' method and 'Plate mode (slow kinetics)' reading mode selected. The 'Test Protocols' table lists various protocols, with 'Growth OD600' highlighted.

Measurement Method and Mode

Measurement Method

- ☐ Fluorescence Intensity
- ☐ Time Resolved Fluorescence
- ☐ Fluorescence Polarization
- ☐ Luminescence
- ☒ Absorbance
- ☐ AlphaScreen

Reading Mode

- ☐ Endpoint
- ☒ Plate mode (slow kinetics)
- ☐ Well mode (flash kinetics)
- ☐ Spectral scan

Test Protocols

Protocol Name	Method	Mode	Optic	Microplate
BCA	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
beta-gal	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
Bradford	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
Elisa 405	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
Elisa 450	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
Elisa 492	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
➤ Growth OD600	Absorbance	Plate mode	Spectr.	SBS STANDARD 96
Lowry	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
MTT toxicity	Absorbance	Endpoint	Spectr.	SBS STANDARD 96
NADH	Absorbance	Plate mode	Spectr.	SBS STANDARD 96
dsDNA	Absorbance Spectra	Endpoint	Spectr.	SBS STANDARD 96
LVis Holmium-Filter	Absorbance Spectra	Endpoint	Spectr.	BMG LABTECH 96
LVis ND-Filters	Absorbance Spectra	Endpoint	Spectr.	BMG LABTECH 96
Protein	Absorbance Spectra	Endpoint	Spectr.	SBS STANDARD 96

Buttons: New, Edit, Copy, Export, Import, Delete, Close, Help

프로토콜 작성: Abs, Plate mode

1. 제목 입력합니다.
2. Plate 선택합니다.
3. 파장 입력합니다.
4. Pathlength correction 선택하지 않습니다.
5. Cycles과 no of flashes를 조절, 실험 조건에 맞게 입력합니다.

Absorbance - Plate Mode

Basic Parameters | Layout | Concentrations & Volumes | Shaking

Protocol name: 1. NEW TEST

Microplate: 2. GREINER 96 F-BOTTOM

Wavelength Settings

☒ Discrete wavelengths ☐ Spectra

No. of wavelengths (1...8): 1

3. Wavelength (220... 1000 nm): 600

4. Pathlength Correction

☒ On

Well Scan

None

Minimum cycle time 1:

General Settings

▲ Standard

Settling time (0.0...1.0 s): 0.2

☐ Flying mode

No. of kinetic windows (1...4): 1

Kinetic Window 1

5. No. of cycles (1...1000): 10

No. of flashes (1...200): 22

Cycle time (1...10000 s): 1

Pause before cycle (1...10): - for 0 seconds

Comment

Layout tap에서 측정 well 선택 후, 좌측 하단의 "Check timing"을 선택하여 총 걸리는 시간을 확인합니다.

Check timing Start measurement OK Cancel Help

프로토콜 작성: Plate layout

1. Layout 선택 → Sample 선택합니다.
2. 우측 화면에서 시료가 담긴 Well을 선택 후 OK 선택합니다.

Luminescence - Endpoint

Basic Parameters **Layout** Concentrations & Volumes Shaking

Content: 1.

Sample Blank Standard
Control Pos.Ctrl. Neg.Ctrl.
Empty

Groups
☐ On

Index
Start value: 97
☐ Constant ☒ Increase

Replicates
Number: 1
☒ Horizontal ☐ Vertical

Reading direction:

96	1	2	3	4	5	6	7	8	9	10	11	12
A	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
B	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23	X24
C	X25	X26	X27	X28	X29	X30	X31	X32	X33	X34	X35	X36
D	X37	X38	X39	X40	X41	X42	X43	X44	X45	X46	X47	X48
E	X49	X50	X51	X52	X53	X54	X55	X56	X57	X58	X59	X60
F	X61	X62	X63	X64	X65	X66	X67	X68	X69	X70	X71	X72
G	X73	X74	X75	X76	X77	X78	X79	X80	X81	X82	X83	X84
H	X85	X86	X87	X88	X89	X90	X91	X92	X93	X94	X95	X96

2.

Check timing ☒ Use enhanced dynamic range Start measurement **OK** Cancel Help

프로토콜 작성: 바로가기 아이콘 생성

1. New Button 선택합니다.
2. 앞서 작성한 Protocol Name 선택 후 OK 선택합니다.
3. 생성된 Protocol 확인합니다.

1.

3.

2.

Protocol Name	Method	Mode	Optic	Microplate
DLR	Luminescence	Well mode	Top	SBS STANDARD 96
Lbase Test	Luminescence	Endpoint	Top	COSTAR 96
Nano DRL F	Luminescence	Endpoint	Top	GREINER 96 F-BOTTOM
test	Luminescence	Endpoint	Top	GREINER 96 F-BOTTOM

프로토콜 작성: 시작

1. 앞서 작성한 Protocol Name 선택합니다.
2. Default focal height, EDR 선택합니다.
3. ID1,2,3를 입력합니다. 후에 결과 확인시 추적이 용이합니다.
4. Start measurement를 선택합니다.

Start Measurement - Nano DRL F

Focus and Dynamic Range / Plate IDs | Sample IDs / Dilution Factors | Crosstalk Determination

Change layout

	1	2	3	4	5	6	7	8	9	10	11	12
A	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12
B	X13	X14	X15	X16	X17	X18	X19	X20	X21	X22	X23	X24
C	X25	X26	X27	X28	X29	X30	X31	X32	X33	X34	X35	X36
D	X37	X38	X39	X40	X41	X42	X43	X44	X45	X46	X47	X48
E	X49	X50	X51	X52	X53	X54	X55	X56	X57	X58	X59	X60
F	X61	X62	X63	X64	X65	X66	X67	X68	X69	X70	X71	X72
G	X73	X74	X75	X76	X77	X78	X79	X80	X81	X82	X83	X84
H	X85	X86	X87	X88	X89	X90	X91	X92	X93	X94	X95	X96

Focus: Default focal height (11 mm)

Dynamic range: Enhanced dynamic range (EDR)

Plate Identification

ID1: <protocol> ID2: <date>, <time> ID3: <1+####>

☒ Automatically enter the plate IDs previously used with this protocol

No. of executed runs since program start: 0 Total no. of executed runs: 0

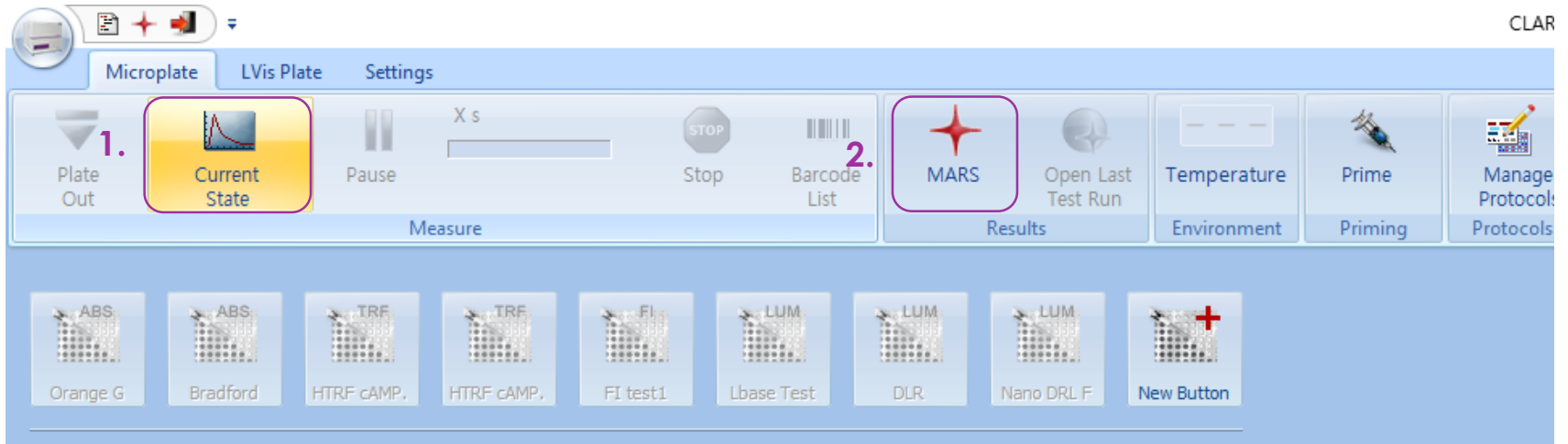
Run statistics:

Aperture 96/384 recommended

Delay: 0 s Start measurement Save & Close Cancel Help

*** EDR 기능은, CLARIOstar Plus 모델 이상에서만 지원하여 형광, 발광에만 적용합니다.

프로토콜 작성: 시작과 결과 확인



1. 실시간 결과 확인할 수 있습니다.
2. 결과 측정 후, MARS 아이콘을 선택하여 결과를 확인할 수 있습니다.

파일 | **홈** | **삽입** | **페이지 레이아웃** | **수식** | **데이터** | **검토** | **보기**

클립보드 : [붙여넣기] [잘라내기] [복사] [서식 복사]

글꼴: 맑은 고딕 | 10 | 가 | 가 | 가 | 가 | 가 | 내첨

맞춤: 텍스트 줄 바꿈 | 병합하고 가운데 맞춤

J12 : $\times$ $\checkmark$ f_x

	A	B	C	D	E	F	G	H	I
1	User: USER								
2	Path: C:\Program Files (x86)\WBMGWSPECTROstar Nano\User\Data								
3	Test ID: 1								
4	Test Name: RNA LVIS Test								
5	Date: 2019-10-16								
6	Time: 오후 3:07:46								
7	Absorbance spectrum	Absorbance values are displayed as OD							
8									
9									
	Well	Content	Raw Data (230)	Raw Data (260)	Raw Data (280)	Raw Data (340)	Ratio 260 / 280	RNA concentrat ion in ng/ μl (calculated)	
10									
11	A10	Sample X9	1.788	1.498	1.492	1.323	1.03	7	
12	A11	Sample X9	1.667	1.425	1.413	1.293	1.1	5.3	
13	B10	Sample X10	1.612	1.426	1.4	1.297	1.25	5.18	
14	B11	Sample X10	1.681	1.394	1.415	1.357	0.65	1.5	
15	C10	Sample X11	1.683	1.437	1.421	1.3	1.13	5.47	
16	C11	Sample X11	1.685	1.45	1.445	1.34	1.05	4.4	
17	D10	Sample X12	2.03	1.616	1.612	1.464	1.03	6.05	
18	D11	Sample X12	1.711	1.442	1.448	1.304	0.96	5.53	
19	E10	Sample X13	1.694	1.435	1.445	1.343	0.9	3.65	
20	E11	Sample X13	1.758	1.481	1.48	1.38	1.01	4.04	
21	F10	Sample X14	1.675	1.418	1.422	1.274	0.97	5.76	
22	F11	Sample X14	1.611	1.386	1.413	1.292	0.78	3.75	
23	G10	Sample X15	1.751	1.461	1.485	1.323	0.85	5.51	
24	G11	Sample X15	1.616	1.385	1.388	1.259	0.97	5.02	
25	H10	Sample X16	1.632	1.405	1.377	1.289	1.31	4.66	
26	H11	Sample X16	1.631	1.381	1.405	1.267	0.82	4.54	
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									

Microplate End point **Table End point** Protocol Information (+)

결과 측정 후 파장 추가 분석

RNA LVIS Test - SPECTROstar Nano MARS

Test Name: RNA LVIS Test (based on Template: RNA)

Absorbance spectrum

Wavelength: 220 nm <Select a Wavelength group>

Drag a column header here to group by that column

Manage Wavelength(s)

Automatic wavelength detection

Minimum and maximum calculations based on:

Raw Data Well: A10

from 220 nm to 360 nm

☐ at next local minimum ☐ add Wavelengths for all local minima

☒ at next local maximum ☐ add Wavelengths for all local maxima

Apply

Change / Add / Remove wavelengths manually

230 260 280 340 0 Add

Delete All

OK Cancel Help

Well	Content	Raw Data (230)
A10	Sample X9	1.788
A11		1.667
B10	Sample X10	1.612
B11		1.681
C10	Sample X11	1.683
C11		1.685
D10	Sample X12	2.03
D11		1.711
E10	Sample X13	1.694
E11		1.758
F10	Sample X14	1.675
F11		1.611
G10	Sample X15	1.751
G11		1.616
H10	Sample X16	1.632
H11		1.631

g/μl (calculated)

7

5.3

5.18

1.5

5.47

4.4

6.05

5.53

3.65

4.04

5.76

3.75

5.51

5.02

4.66

4.54

Data: 230 Raw Data

User: USER

Reader Type: SPECTROstar Nano

User: USER, (data path: C:\Program Files (x86)\BMGL\W\SPECTROstar Nano\User\WData)

오전 12:31 2019-10-18

- 추가분석 파장은, 반드시 측정 protocol에서 측정한 범위 안에 있는 파장만 가능합니다.

다른 PC에서 결과 분석

File Home View Calculations Templates Layout Formats and Settings

Open Close Define Print Report Quick Print Export Excel Sign Wizard Calculations Ranges Export Table Export Table Manage Layout Abs in Add Bar

Navigation / Data Selection Available Data

Manage Test Runs

Recent Test Runs Microplates LVis

LVis Plate measurements (1):

Drag a column header here to group by that column

Test ID	Test Name	ID 1	ID 2	ID 3	Date	Time	Measurement Method	Signed	Protocol Comment	State
16	Protein Quant	BSA Std Curve 2			2012-01-04	오후 1:2...	Absorbance			layout ...

• MARS로 넘긴 결과를, 다른 PC에서 분석하고자 할 때, MARS의 "Open" 선택 후, "Import"를 눌러 결과를 선택합니다.

Copy Delete Export Import Merge Test Runs Open