

# **O**perational **M**anual

# M965/965+ Reader

M965 Mate 2.0 USB

PC Software



Metertech Inc. Version 2.10



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# **System Requirements**

- CPU Pentium 4 2.0GHz above for Windows 7 or above.
- 2GB of RAM or above for Windows 7 or above.
- Microsoft .NET Framework 3.5
- 50MB of available hard drive for the program files
- CD ROM drive
- 16bit color display with pixel resolution 1280 x 768 or above.
- Keyboard, Mouse, and RS232 serial port or USB port

# **Software Installation**

To install M965 Mate 2.0 USB

- 1. Start Windows and close all unnecessary Windows applications.
- 2. Insert the software CD into the CD-ROM drive. The installer user interface is displayed.
- 3. Click on the "setup" to install M965 Mate 2.0 USB software.

Name	Ŧ
🛱 M965 Mate 2.0 USB _v2.1.29	
🖏 setup	

4. Follow the on-screen instruction.

y 11905 Mate 2.0 050		
Welcome to the M965	Mate 2.0 USB Se	tup Wizard
The instaler will guide you through th computer.	e xlepx required to install M96	5 Mele 2.0 USB on your
WARNING: This computer program in Unauthorized duplication or distribution or cominal penaltics, and will be prose	s protected by copyright law as on of this program, or any portio could to the maximum extent	nd international treaties. on of it, may result in severa civil possible under the law.
	Carcel	< Back Next>
y M965 Mate 2.0 USB		
Select Installation Fo	lder	
The installer will install M965 Mate 2. To install in this folder, click "Next". Foldor: [CAPnogeam Files (x865)Meterisch	.0 USB to the following toder. To install to a different folder, w4965 Mate 2.0 USEA	enter it below or click "Browse". Browse
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Install M965 Mate 2.0 USB for you © Lvoyone © Just me M965 Mate 2.0 USB Confirm Installation The instale: is ready to instal M96 Click "Need" to start the installation	S Mate 2 D USB on your com	Disk Cost

5. After the installation is completed, click "Close".

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# M965/965+ Instrument Setup

- Be sure the M965/965+ instrument is in standalone mode. <u>Method to switch between standalone and PC modes on M965/M965</u>: Turn off the instrument first, then press the "OPTION" key while turn on the instrument again, it will switch to other mode.
- 2. On M965/965+ standalone mode, please go to SETUP / COMPUTER.
- 3. Move "UP/DOWN" buttons to select USB port and press "ENTER" to confirm selection with mark "S" shown on the right side of that port.
- 4. Power off and power on the M965/965+ again, then press the "OPTION" key while turn on the instrument, it will switch to PC mode.
- 5. The instrument starts to do initialization.
- 6. After initialized, be sure the screen show "pc\_usb mode" as figure 1 below.



Figure 1

# To Start M965 Mate 2.0 USB

Connect the PC and the instrument with an USB cable, then power meter up.

1. Go to M965 mate 2.0 USB

From Start menu →All Programs→Metertech→M965 Mate 2.0 USB



 For the first time login, key in default value "admin" for both User name and Password in Security window below. Press "OK" to start comport connection. User name : admin Password : admin

Login		
User name :	admin	
Password :	*****	
Project name :		

3. If the computer appears the message as below, please shut off the M965 mate 2.0 USB software and restart it again, let the software reconnect the reader.

lessage	X
Cannot connect to M965 Mat Please ensure M965 Mate 2.0 and check your connection ca	e 2.0 is under PC control mode able also
	ОК

4. If PC softwaer is successfully connected to M965/965+, the "Connected" sign with green background will appear on the upper right message area of the screen.



- 5. In case the PC software still cannot connect to the instrument, please shut off the PC software and the reader. Be sure the USB cable is plugged in and restart the PC software and Reader again to do the connection.
- 6. Now, the Reader and software are ready to perform the experiment.

# M965 Mate 2.0 USB Menu Software Structure

#### **Main Window Overview**

- Section A: Menu
- Section B: Tool bar
- Section C: Message
- Section D: Temperature monitor
- Section E: Working area
- Section F: Data review

Section G: Special function

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	E												STD09 N.A		
	E												SIDIO N.A		
START	2												STD12 N.A	_	
	G												STD13 N.A		
	H												STD14 N.A		

#### **Section A Menu**

#### File Menu

The File Menu contains the file and print functions for the experiment data and mapping file.

Load (Data or Map)	iker 👃	Incubate		Filter tune	B P	ost proc	cessing									
Save (Data or Map)	Paramet	ers				3	Station metho			Dista matin	ń					
Print Preview	End	ement type Point	Two Poir	nts	Kinetics		<ul> <li>Immediate</li> <li>Delay</li> </ul>			Continue Stepping	,, NUS 1					
Exit Ratio/inhibition / Q.C.	Filter	vavelength(	nm)	Reference	Mar		Shaker ] Use shaker									
Print options			-													
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ecial function	B													STD03 0	05	
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New: Create a new experiment

Load (Data or Map): Load a stored experiment, results or map layout
Save (Data or Map): Save the experiment parameters, results or map layout
Export: Export report to a file with ".csv" file extension
Print: Select experiment to print out
Preview: Preview experiment report format
Exit: Close the M965 Mate 2.0 USB software

#### Setup Menu

The setup menu contains the M965 Mate 2.0 USB system configuration and user account management.

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Initial		Incubator	r 🔘 Fil	ter tune	Pos Pos	t processii	19							
ocol select function	Paramete	15												
2 8 8	Measure	ment type				Starting	r method		Plate motio	in				
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Ratio/Inhibition / Q.C.	Main1	405	E Re	eference fi	fter	🗐 Use	shaker							
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	С												ST005 0.3	
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Advance BIO	D E F												STD08         MA           STD09         NA           STD10         NA           STD11         NA           STD12         NA	
Advance BIO	D E F G												STD09         NA           STD10         NA           STD11         NA           STD12         NA           STD13         NA	
Advance BIO	D E F G												STD09         NA           STD09         NA           STD10         NA           STD11         NA           STD12         NA           STD13         NA           STD14         NA	

**Security setting**: To create a new user ID and set up the security level, or delete the user ID.

**Initial:** To initial reader and PC software, especially after the reader and the PC software are left for a while, or after re-start the software than to do re-connect.

#### Help Menu

The help menu provides information on software version, contact information of the

e Setup help	-												37.09	C (set 37°C)	Standby	Conne
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Basic parameters	End F	Point	Two Points		Kinetics	0	Immediate     Cantinuous     Delay     Stepping									
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Filter wavelength(nm)						laker Use shake									
Print options																
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vender, and the user activity records.

About: To provide software version and contact information of the vender.Audit trail: To record the user activity for trailing.

#### **Section B Toolbar**



Plate in/out: To open or close the plate compartment
Shaker: To shake the plate with desired speed and shaking time
Incubator: To control the incubator with desired temperature, and display temperature reading on section D temperature monitor.
Filter tune: To set up the wavelengths of installed filters on 8-slot filter wheel, and have the meter tune the light intensity for each filter.
Post processing: Use the current protocol to re-process data results
Start: To start the experiment with current protocol

#### Section C Message

During operation, the current status will be shown on the upper right of the screen.



#### **Section D Temperature monitor**

When the incubator is activated, the set and actual temperatures are shown on the left of the message area.



#### Section E Working area & F Data review

The M965 Mate 2.0 USB allows you to define measurement protocols and analyze obatined microplate data. The protocol parameters are input in E Working area, and the test data is shown in F Data review.

xocol select function	Paramete Mensure	ers ement type				Starting meth	nod		Plate motio	n				
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1000 C		-	-										STD06 N	λ
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#### **Section G Special function**

The special function is customized for the Biotest reagent test. This experiment effects only in conjunction with the Biotest reagents.

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Quantitative / Cut off / Ratio/Inhibition / Q.C.	Fiter v Main1	Filter wavelength[nm] Im Reference filter Main1 [405 •				Shak E Ur	Shaker E Use shaker									
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	н													STD14 NA		
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#### M965 Mate 2.0 USB Function

#### **Basic Parameters**

**Measurement types**: The M965 Mate 2.0 USB provides three types of measurement, i.e. End point, Two point, and Kinetic measurement.

**End point read:** During the end point read, the M965/965+ reads at one wavelength, with one-reference wavelength read as optional

Plate invout	aker	incubato		Hiter tune		2051 prot	essing								
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START	E?													81012	8
START	F G													A REAL PROPERTY AND A REAL	
START	G													OTD44	

**Two points read:** During the two points read, the M965/965+ reads at two wavelengths, with two-reference wavelength read as optional.

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Basic parameters	Paramet Measur End	Hearranteerst type End Point Two Points Kinetics Fiter wavelength PMT Reference filter		s	Starting meth Immediate Delay	ad		Plate motion © Continuo © Stepping	us							
Quantitative / Cut off / RatioAnhibition / Q.C	Filter	vavelength) 405 •	nm) 🖂 ]	Reference	filter	E	ihaker   Use shaker									
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Advance BIO START	A B C D E F G													STD03         STD04           STD05         STD05           STD06         STD07           STD08         STD09           STD09         STD10           STD11         STD12           STD12         STD13	205 21 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25	

**Kinetics read:** During the kinetics read, users can define the kinetic method by selecting Average rate, Maximum rate, Maximum Abs, Total delta Abs, Time to max rate, or Time to max Abs in the Kinetic method list. The user can also define the measure numbers and interval.



To Set up a measurement with End point, Two points or Kinetic method, user need to define following parameters.

#### **Primary and Reference wavelengths**

If a Primary wavelength is defined alone, the M965/965+ reads the plate only once at a single wavelength. If a Reference wavelength is defined, the plate will be read twice and automatically calculate the delta Abs between these two readings. Method to set up the Primary and Reference wavelengths:

1. Select the Measurement type of End Point, or Two Points.

2. Enter the Primary wavelength in Main1 or Main2, and the reference Ref1 or Ref2

#### Starting method to read plates

If the "Immediate" option is selected, the instrument starts reading the plate right after the Start button is pressed. Users can also define the period of the plate reading delay. To define the starting method,

- 1. Select the "Immediate" option.
- 2. Or choose "Delay", then input the delay time in second.

#### **Plate motion**

Users can select the plate motion as stepping in milliseconds or continuous mode.

#### The built-in Incubator

The incubator will keep the plate stay at temperature-controlled environment. Users can activate the incubator by

- 1. Clicking the incubator button on toolbar to display the incubator pop-up menu.
- 2. Entering the desired temperature on the pop-up menu, and press "Activate" tab to start the temperature control.

#### The built-in Shaker

The built-in Shaker in the instrument allow user to define speed setting as Low 8Hz, Medium 11Hz, or High 14Hz. Users can also define the shaking period.

To enable the shaker,

- 1. Click the shaker button
- 2. Select the speed to be Low, Medium or High
- 3. Define the shaking period in second.

## Well Mapping

Users can define five types of different wells. They are Blank, Standard, Sample, Positive, and Negative on the Type menu at Map layout.

Users can also define the sample well name at Map layout as required.

I INCOMENTAL INDU SU	iance 👔	nicuban		T mest tut	- 0	r gar pro	ucaaniy									
ptocol select function	Param	eters					Eterline in start	and		That a math						
Partie parameters	Measu	rement type	·				Starting met	nod		Plate mot	ion					
basic parameters	End	Point	Two Po	ints	Kinetics	3	Immediat Delay	e		Carcini	ng					
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Filter	wavelength(	(nm) 	] Reference	filter	1	Shaker 🗍 Use shak	ar								
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ita analysis	Map la	yout				_										
Data	•	1	2	3	4	5	6	7	8	9	10	11	12	STD01 120	000	
Data	F A	SAM01	SAM02	SAM03	SAM04	SAM05	SAM06	SAM07	SAM06	SAM09	SAM10	SAM11	SAM12	STD02 145	000	
		1101-1	102-1	103-1	104-1	103-1	100-1	101-1	con-i	103-1	110-1	1.1151	116-1	eTD63 100	0.000	
ecial function		SAM01	SAM02	SAM03	SAM04	SAM05	SAM06	SAM07	SAM08	SAM09	SAM10	SAM11	SAM12	311103 1001	0.000	
ecial function	в	SAM01 T01-2	SAM02 T02-2	SAM03 T03-2	SAM04 T04-2	SAM05 T05-2	SAM06 T06-2	SAM07 T07-2	SAM08 T08-2	SAM09 T09-2	SAM10 T10-2	SAM11 T11-2	SAM12 T12-2	STD04 120	0.000	
ecial function Advance BIO	B	SAM01 T01-2 SAM01 T01-2	SAM02 T02-2 SAM02	SAM03 T03-2 SAM03	SAM04 T04-2 SAM04 T04-2	SAM05 T05-2 SAM05 T05-3	SAM06 T06-2 SAM06 T05-3	SAM07 T07-2 SAM07	SAM08 T08-2 SAM08	SAM09 T09-2 SAM09 T09-3	SAM10 T10-2 SAM10	SAM 11 T11-2 SAM 11	SAM12 T12-2 SAM12	STD04 1200 STD05 1500	0.000	
Advance BIO	B C	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01	SAM05 T05-2 SAM05 T05-3 STD01	SAM06 T06-2 SAM06 T06-3 STD02	SAM07 T07-2 SAM07 T07-3 STD03	SAM08 T08-2 SAM08 T08-3 STD04	SAM09 T09-2 SAM09 T09-3 STD05	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD03 1000 STD04 1200 STD05 1500 STD05 NA	0.000	
Advance BIO	B C D	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01 P01-1	SAM05 T05-2 SAM05 T05-3 STD01 C01-1	SAM06 T06-2 SAM06 T06-3 STD02 C02-1	SAM07 T07-2 SAM07 T07-3 STD03 C03-1	SAM08 T08-2 SAM08 T08-3 STD04 C04-1	SAM09 T09-2 SAM09 T09-3 STD05 C05-1	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD05 1500 STD05 1500 STD05 NA STD07 NA	0.000	
pecial function Advance BIO	B C D	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01 P01-1 P0S01	SAM05 T05-2 SAM05 T05-3 STD01 C01-1 STD01 C01-2	SAM06 T06-2 SAM06 T06-3 STD02 C02-1 STD02 STD02	SAM07 T07-2 SAM07 T07-3 STD03 C03-1 STD03 C03-2	SAM08 T08-2 SAM08 T08-3 STD04 C04-1 STD04	SAM09 T09-2 SAM09 T09-3 STD05 C05-1 STD05	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD05 100 STD04 1200 STD05 1500 STD05 NA STD07 NA STD08 NA STD09 NA	0.000	
Advance BIO	B C D E	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01 P01-1 P0501 P01-2 P01-2	SAM05 T05-2 SAM05 T05-3 STD01 C01-1 STD01 C01-2 STD01	SAM06 T06-2 SAM06 T06-3 STD02 C02-1 STD02 C02-2 STD02 C02-2	SAM07 T07-2 SAM07 T07-3 STD03 C03-1 STD03 C03-2 STD03 C03-2	SAM08 T08-2 SAM08 T08-3 STD04 C04-1 STD04 C04-2 STD04	SAM09 T09-2 SAM09 T09-3 STD05 C05-1 STD05 C05-2 STD05	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD04 1200 STD04 1200 STD05 1500 STD05 NA STD07 NA STD09 NA STD09 NA	0.000	
vecial function Advance BIO	B C D E F	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01 P01-1 P0501 P01-2 BLK01 Z01-1	SAM05 T05-2 SAM05 T05-3 STD01 C01-1 STD01 C01-2 STD01 C01-3	SAM06 T05-2 SAM06 T05-3 STD02 C02-1 STD02 C02-2 STD02 C02-3	SAM07 T07-2 SAM07 T07-3 STD03 C03-1 STD03 C03-2 STD03 C03-2 STD03 C03-3	SAM08 T08-2 SAM08 T08-3 STD04 C04-1 STD04 C04-2 STD04 C04-3	SAM09 T09-2 SAM09 T09-3 STD05 C05-1 STD05 C05-2 STD05 C05-3	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD04 1200 STD04 1200 STD05 1500 STD05 NA STD07 NA STD09 NA STD09 NA STD10 NA STD11 NA	0.000	
Advance BIO	B C D E F	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 P0S01 P01-1 P0S01 P01-2 BLK01 Z01-1 NEG01	SAM05 T05-2 SAM05 T05-3 STD01 C01-1 STD01 C01-2 STD01 C01-3 STD01	SAM06 T06-2 SAM06 T06-3 STD02 C02-1 STD02 C02-2 STD02 C02-3 STD02	SAM07 T07-2 SAM07 T07-3 STD03 C03-1 STD03 C03-2 STD03 C03-3 STD03	SAM08 T06-2 SAM08 T06-3 STD04 C04-1 STD04 C04-2 STD04 C04-3 STD04 C04-3 STD04	SAM09 T09-2 SAM09 T09-3 STD05 C05-1 STD05 C05-2 STD05 C05-3 STD05	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	STD04 1200 STD05 1500 STD05 1500 STD05 NA STD07 NA STD09 NA STD09 NA STD10 NA STD10 NA STD11 NA STD11 NA	0.000	
Advance BIO	B C D F G	SAM01 T01-2 SAM01 T01-3	SAM02 T02-2 SAM02 T02-3	SAM03 T03-2 SAM03 T03-3	SAM04 T04-2 SAM04 T04-3 POS01 P01-1 P0S01 P01-2 BLK01 Z01-1 NEG01 N01-1	SAM05 T05-2 SAM05 T05-3 STD01 C01-1 STD01 C01-2 STD01 C01-3 STD01 C01-4	SAM06 T06-2 SAM06 T06-3 STD02 C02-1 STD02 C02-2 STD02 C02-3 STD02 C02-3	SAM07 T07-2 SAM07 T07-3 STD03 C03-1 STD03 C03-2 STD03 C03-3 STD03 C03-4	SAM08 T08-2 SAM08 T08-3 STD04 C04-1 STD04 C04-2 STD04 C04-2 STD04 C04-3 STD04 C04-4	SAM09 T09-2 SAM09 T09-3 STD05 C05-1 STD05 C05-2 STD05 C05-3 STD05 C05-4	SAM10 T10-2 SAM10 T10-3	SAM11 T11-2 SAM11 T11-3	SAM12 T12-2 SAM12 T12-3	31D23 100 STD04 1200 STD05 1500 STD05 NA STD05 NA STD08 NA STD09 NA STD09 NA STD10 NA STD10 NA STD11 NA STD11 NA STD12 NA	0.000	

•	1	2	3	4	5	6	7	8	9	10	11	12
	SAM01	SAM02	SAM03	SAM04	SAM05	SAM06	SAM07	SAM08	SAM09	SAM10	SAM11	SAM12
<u> </u>	T01-1 *	ID			1000	23	T07-1	T08-1	T09-1	T10-1	T11-1	T12-1
в	SAM01 T01-2*	LD nan	ne	1000	Company of	6	SAM07 T07-2	SAM08 T08-2	SAM09 T09-2	SAM10 T10-2	SAM11 T11-2	SAM12 T12-2
С	SAM01 T01-3 *	test-A	í.		OK	6	SAM07 T07-3	SAM08 T08-3	SAM09 T09-3	SAM10 T10-3	SAM11 T11-3	SAM12 T12-3
D		<u> </u>	-	P01-1	C01-1	C02-1	STD03 C03-1	STD04 C04-1	STD05 C05-1			

IVIa	ip iayo	out											
	•	1	2	3	4	5	6	7	8	9	10	11	12
•	Α	SAM01 T01-1 *	SAM02 T02-1	SAM03 T03-1	SAM04 T04-1	SAM05 T05-1	SAM06 T06-1	SAM07 T07-1	SAM08 T08-1	SAM09 T09-1	SAM10 T10-1	SAM11 T11-1	SAM12 T12-1
	в	SAM01 T01-2 *	SAM01 T01-1 *	SAM03 T03-2	SAM04 T04-2	SAM05 T05-2	SAM06 T06-2	SAM07 T07-2	SAM08 T08-2	SAM09 T09-2	SAM10 T10-2	SAM11 T11-2	SAM12 T12-2
	С	SAM01 T01-3 *	T02-3	SAM03 T03-3	SAM04 T04-3	SAM05 T05-3	SAM06 T06-3	SAM07 T07-3	SAM08 T08-3	SAM09 T09-3	SAM10 T10-3	SAM11 T11-3	SAM12 T12-3
	D				POS01 P01-1	STD01 C01-1	STD02 C02-1	STD03 C03-1	STD04 C04-1	STD05 C05-1			

## Quantitative / Cut off / Ratio / Inhibition / QC

#### **Quantitative setting**

The M965 Mate 2.0 USB allows user to define quantitative analysis to determine the sample concentration. Seven types of curve fitting equations are built to calculate standard polynomial coefficients. Users can select Curve on plate, Stored curve, Standard line, or Concentration factor to define Quantitative method.

- 1. Click the Quantitative / Cut off / Ratio / Inhibition / QC button.
- 2. Click the check mark in front of the Quantitative settings area, and be sure the check mark turned into green.
- 3. Define the desired parameters.

File Setup Help		37.0°C (set 37°C) Standby Connected
💕 Plate in/out 🔒 Shaker	Incubator O Filter tune E Post processing	
Protocol select function	Quantitative settings	
Basic parameters	Curve on plate Stored curve Standard line Concer	ntration factor
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Data surve fit X-scale Y-scale Linear regression • O-Linear @ Linear Unear regression • O-Linear O-Log10 • Leg10	🕐 User key in
Print options	Cubic polynomial Point to point Cubic: spline Pouble Calculation (S/Cd	O) ratio
Data analysis	2 parameters logit-log     4 parameters logistic     Advance BIO     B/PostBV6(+)	
Data	C Negative()	
Special function		
Advance BIO	Ratio Finite Analysis         Defail on at 80           C Nutic 1903 %         Immodels No-800 %         A + 1 + 1           D.A. andings         Defail on at 80         A + 1 + 1           D.A. andings         Defail on at 80         A + 1 + 1	
START	Construction         Construction<	

#### Cutoffs

Cutoffs are used to classify results. Users can define three Cutoff methods as Single, Double, Calculation and S/CO ratio

- 1. Click the Quantitative / Cut off / Ratio / Inhibition / QC button.
- 2. Click the check mark in front of the Cutoff settings area, and be sure the check mark turned to green.
- 3. Define the desired parameters.

File Setup Help			37.0°C (set 37°C)	Standby	Connecte
Plate in/out 🔒 Shaker	Incubator O Filter tune B Post processing				
Protocol select function	Quantizative settings				
Basic parameters	Curve on plate Stored curve Standar	I line Concentration factor	Bit Unit None -		
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Data curve fs X-scale V-scale Linear regression • B Linear @ Linear O Leg10 O Leg10		O lian key n		
Print options	Cutoff settings Single Double Calcula	tion (S/CO) ratio			
Data analysis	Threshold . 0 If result > threshold . 0 Positive(+)	then			
Data	Cutoff label : + / -				
Special function					
Advance BIO	Ratic / tohtokon settings C Ratio: BB3 %  Inhibition : 100-B/B0 % O.C. Antings Onerent Highton: Less APC + MC + s == H	refinition of B0			
START	0 ccs	1NC+ 1 4*	+ 1		
	Pase condition . If DC + true thos (MDD) OC = IOC1				

#### **Ratio/Inhibition**

The M965 Mate 2.0 USB will take a reference (B0) and other samples (B) to calculate the Ratio/Inhibition

- 1. Click the Quantitative / Cut off / Ratio / Inhibition / QC button.
- 2. Click the check mark in form of the Ratio/Inhibition settings area, and be sure the check mark turned green.
- 3. Define the desired parameters.

Plate in/out	cubator   O Filter tun	e Post proces	ang			
tocol select function	Quantitative settings					
Basic parameters	Curve on plate	Stored curve	Standard line	Concentration factor	Econcentration unit	
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Data curve fit Linear regression	* Xecolo * Xecolo © Linear © Log %	Viscale @ Lineor © Log10		Ci User Key in	
	Cutoff settings					
Print options	Single	Double	Calculation	(S/CO) ratio		
Data	Cutoff label (+ 7 -	@ Pr C N	gative(-)			
ecial function						
ecial function Advance BID	Ratio / Inhibition settings	Inhibition : 100-8490 9 MIC+104-91 a	Definition	f 80 1 ▼		

# Q.C.

The M965 Mate 2.0 USB provides Q.C. algorithm for experiment to determine the results.

- 1. Click the Quantitative / Cut off / Ratio / Inhibition / QC button.
- 2. Click the check mark in front of the Q.C. settings area, and be sure the check mark turned green.
- 3. Define the desired parameters.

File Setup Help						37.0℃ (set: 37℃)	Standby	Connected
💅 Plate in/out 📳 Shak	er 📕 Inc	ubator O Filter tu	ne 🔡 Post proces	sing				
Protocol select function		Quantitative sufficies						
Basic parameters		Curve on plate	Stored curve	Standard line	Concentration factor	00/centration unit		
Quantitative / Cut off / Ratio/Inhibition / Q.C.		Data curve fit Linear regression	* Sacale • Linear © Log10	Yecala @ Linear © Log10		C User ley in		
		Cutaff settings						
Print options		Single	Double	Calculation	(S/CO) ratio			
Data analysis Data		Directodd 0 Cutoffiabel + / -	fren By Pr O No	ut > Itoeshold then potres(+) rgative(-)				
Special function								
Advance BIO		Ratio / Infutation pettings (*) Ratio Billio % Q.C. settings General equation : L ← aPC •	∰ fationion : 100-0.00 %	Diffition [4 +]	d 50 1 +]			
		D 001) 1	· · · · · · · · · · · · · · · · · · ·	*PC+ 1	7NC+ 1 ==	x 1		
START		© GC2: © GC3: © GC4:						
		Pass condition : (If QC = true	then PASS)	QC = QC1				

# **Print options**

Users can define the Project title, User name, experiment Note, and check the desired items in Sections for printing to print the result of the experiment.

ile Setup Help					37.0°C (set: 37°C)	Stan
Plate in/out	aker 📕 Incubator	O Filter tune	Post processing			
Protocol select function	Print actions					
Basic parameters	Title setting date/time of the pe	formed measurement				
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Project name :					
Print options	Note :	amin		*		
Data analysis				*		
Data	Sections for printin	g				
Special function	1971 Title	🖾 Data	[₩] Q.C.			
Advance BIO	🛛 Results	📋 Cut off	Cinetics	Select all		
		CETE PROFESSION AND DESCRIPTION		[month and ]		

# Main Menu Configuration

There are three functions on the main menu. They are File, Setup and Help.

File	
New	
Load (Data or Map)	
Save (Data or Map)	•
Export	
Print	
Preview	
Exit	

Setup	
Sec	urity setting
Initia	al



#### **File menu functions**

There are seven options, i.e. New, Load (Data or Map), Save (Data or Map), Export, Print, Preview, and Exit under the main menu.

- 1. New: Create a new experiment
- 2. Load (Data or Map) : Load an existing experiment file or map layout

🖙 Load File		Stating ratios			x
Users 😺 « Users	M965 Mate 2.0      Experiment		Search Experim	ent	٩
Organize 🔻 New f	older		1	= • 🗖	0
ConeDrive Same Recent Places Dropbox	Name     Sample.exp	Dat 201	e modified 7/8/11 下午 04:	Type EXP File	
<ul> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>New Library</li> <li>Pictures</li> <li>Videos</li> </ul>	H.				
Computer					
Local Disk (C:)	<b>▼</b> 4	m			F.
Fil	le name:	•	txt files (*.exp) Open  ▼	Cancel	•

🖉 🧹 🖉 🖉	▶ M965 Mate 2.0 ▶ Map	+	++	Search Map		
Organize 🔻 New 1	folder				= • 🗊	0
<ul> <li>OneDrive</li> <li>Recent Places</li> <li>Dropbox</li> <li>Libraries</li> <li>Documents</li> <li>Music</li> <li>New Library</li> <li>Pictures</li> <li>Videos</li> </ul>	Name 96well.map sample.map		Date 2017 2017	modified /3/27 上午 10: /3/27 上午 10:	Type MAP File MAP File	
Computer Local Disk (C:) Cocal Disk (D:)						
F	le name:	- <u>III.</u>	•	txt files (*.map)		•

3. Save (Data or Map) : Save experiment file or map layout

Organize 🔻 New folde	1				(
ETAX  Intel Iog MSOCache PerfLogs Program Files Program Files Users Users Uvmate 3.4.5	Name		Date modified 2017/8/11 下午 04:	Type EXP File	
📜 llvmate 3.4.9 2 🍸	4 [	Ш			
File name: Test 01					
Save as type: txt files	(*.exp)				
Save as type: txt files	(°.exp)				

	ers ▶ I	M965 Mate 2.0 🕨 Map		44	Search Map	_	
Organize 🔻 Ne	v folde	e)					
Documents Music New Library Fictures Videos Computer Local Disk (C:)	• III	Name 96well.map sample.map		Date 2017 2017	e modified 7/3/27 上午 10: 7/3/27 上午 10:	Type MAP File MAP File	
🛍 Network	-	< [	m				
File name:	Test 01						
Save as type:	txt files	(*.map)					

- 4. Export: To export to a file with file extension "csv", and it can be loaded into the excel, notepad or google spreadsheet
- 5. Print: To print report using the printer connected to the PC
- 6. Preview: To preview the experiment report before printing

0				Close									Page	ŝ
~				ciose									age	
														-
	Date of printing 12	017/9/6	7,∉ 02;45:20					Page:1						
	Name : 19.ME	LA_1pp	xo(meiamine_	1ppo)										
	Note :													
	Results data													
	Protocol paramete													
	Experimentille:	0500	Cilusers/965	Mate/Exper	iment/Spe	ciel/test08e	sp.							
	Measurementtyp	-	End point											
	Ref 1 filteriom):													
	Starting method:		Immediate											
	Plate mode:		Continuous											
	Need shake:		NO											
	Need incubator.	2	NO NO											
	Quant, method:		Curve on pla	te										
	Quant. standards	number	. 6											
	Curve fit method:		Advance BIO	82										
	Plate layout													
	1	2	3	4	5	6	7	8	9	10	11	12		
	^			8AM01-1	SAM06-1	8AM11-1	SAM16-1	8AM21-1	8AM26-1					
	8			8AM02-1	BAM07-1	SAM12-1	SAM17-1	8AM22-1	BAM27-1					
	0			SAM04-1	BAM09-1	BAM14-1	8AM19-1	BAM24-1	8AM29-1					
	Ē			8AM05-1	8AM10-1	8AM15-1	8AM20-1	8AM25-1	8AM30-1					
	F			81001-1	8TD02-1	87003-1	8TD04-1	81005-1	87006-1					
	G			STD01-2	87002-2	8TD03-2	ST004-2	STD05-2	ST006-2					
	н													
	Rew abs.													
	F1(Main)													
	1	2	3	4	5	6	7	8	9	10	11	12		

7. Exit: to end the M965 Mate 2.0 USB operation



#### Setup menu functions

The setup menu includes the Security setting and the Initial.

1. Security setting: Users should log in with their own ID and Password to start the experiment. This function lets you log in / log out system, create, and or delete user ID.

Logo in system To enter the system, please use the default value (admin) to log in.

Login	25	
User name :	admin	
Password :	*****	
Project name :		
		OK

User name: admin

# Password: admin

Entering the wrong user name or password, The M965 Mate 2.0 USB will show the pop-up window as below.

MessageBox	<u> </u>
Can't fine user name, please ch	neck again
	ОК

N	lessageBox 🥌	×
	Password error	
	ОК	

Log out system

To log out system or change the operator ID

Security			
Login			
Admin ID : ac	lmin		
Project name	3		
	Delete ID	New ID	Log out

# Create a new ID

This function can be performed by users with administrator authority only.

Login			
Admin ID	: admin		
Project na	me :		
	Delete ID	New ID	Log out

Enter the new ID with user name, password, and ID authority (administrator or user), and then press Save button to accept.

ivew user		
User name :	Test 01	
Password :	*****	
Confirm password :	*****	
Administrator		
🗇 User	Cancel Save	

Successfully creating a new user will see the pop-up window as below.

MessageBox	23
Create new use	r ok!
	OK

#### Delete ID

This function can be performed by users with administrator authority only.

Login			
Admin ID : adr	nin		
Project name :			
	Delete ID	NewTD	Legat
	Delete ID	INEW ID	Log out

Enter the ID which you want to delete and press Delete to execute.

Delete user				
User name :	Test 01			
				45
		<u> </u>		
		Connel	Delete	

#### 2. Initial

This function is re-connect the M965/965+ Reader and the computer. Especially after the reader and the PC software are left for a while, or after re-start the software than to do re-connect.



#### Help menu functions

The help menu, not only shows the information about the vendor and PC software version, but also trails the log-in and operation record.

1. About: Provide the contact information of vendor and PC software version



2. Audit trail: To review the records of activities of different ID

() 🦉 🦉 « Use	is 🕨	965Mate 🕨 Log	• • • •	Search Log	
Organize 👻 🛛 New	folde	ir.		855 <b>-</b>	
E Desktop	*	Name		Date modified	Туре
bownloads		20170705133829.log		2017/7/5 下午 02:11	Text Docun
ConeDrive		20170705141403.log		2017/7/5 下午 02:39	Text Docun
Recent Places		20170705164709.log		2017/7/5 下午 05:33	Text Docun
Uropbox 👽		20170706095841.log		2017/7/6 上午 10:00	Text Docun
-		20170706101655.log		2017/7/6 下午 01:32	Text Docum
	=	20170706134405.log		2017/7/6 下午 03:01	Text Docum
Documents		20170706151022.log		2017/7/6下午05:15	Text Docun
		20170707110930.log		2017/7/7 上午 11:10	Text Docum
Distures		20170707111053.log		2017/7/7 下午 05:30	Text Docum
		20170710162331.log		2017/7/10 下午 04:	Text Docum
VIGCOS		20170710172046.log		2017/7/10下午 05:	Text Docum
Computer		20170711142802.log		2017/7/11下午 02:	Text Docum
Lecal Disk (C)		20170719171247.log		2017/7/19 下午 05:	Text Docum
Local Disk (C:)		20170720134906.log		2017/7/20下午 04:	Text Docum
Cocal Disk (D.)	-	* [			۲.
	File na	ime:		Curve Files (*.log)	•
				Onen 🖌	Cancel

# **Toolbar Menu Configuration**

There are Plate In/Out, Shaker, Incubator, Filter tune, and Post processing tabs on the toolbar menu.

1. Plate in/out: To move the plate holder in or out, the plate holder status will show on the status bar



2. Shaker: This tab is used to configure and operate the shaker. The shaker has three translation speeds, i.e. low (8Hz), Medium(11Hz) and High (14Hz)



3. Incubator: To warm up the incubator at set-point temperature from the lowest  $15^{\circ}$ C to the highest  $50^{\circ}$ C. If the ambient temperature is higher than  $15^{\circ}$ C, the effective lowest temperature should be set to the ambient temperature + 3C.

	(A		<b>A</b>	(F) -
Plate in/out	Shaker	Incubator	O Filter tune	Post processing

4. Filter tune: The 965Mate has an eight- slot filter wheel for user to install filters



5. Post Processing: Use the current parameters of selected measure mode and recalculate the data



# Message Area Configuration

The message area contains two parts, the status message and the temperature monitor.

1. Status message: To display the status of instrument current operation condition. All messages are listed in the following chart.



Message	Description
Initializing	Initializes the instrument
Standby	Test ready
Data reading	Load data
Post processing	Recalculate the data
Disconnect	The instrument has no connection with M965 Mate 2.0
Disconnect	USB
Connected	The instrument connects with M965 Mate 2.0 USB
Filter tune	Start tuning filter

2. Temperature monitor: To display the real-time temperature and set-point temperature of instrument incubator.



# **Defining Parameters for Experiment**

#### **Defining Parameters**

When starting an experiment, users must first define the parameters such as wavelength, reading method, plate motion, incubator, and shaking. Above functions are included in Basic parameters tab.

1. Measurement Type: Users can define three measuring types, i.e. End point, Two point and Kinetic.



#### a < End Point

File Setup Help				Standby Connected
💋 Plate in/out 🔚 Sha	ker 📕 Incubator 🔘 Filter tune 🔠 Po	st processing		
Protocol select function	Parameters Manufacture base	Starting method	Plate motion	
Basic parameters	End Point Two Points Kinetics	<ul> <li>Immediate</li> <li>Delay</li> </ul>	<ul> <li>Continuous</li> <li>Stepping</li> </ul>	
Quantitative / Cut off / RatioInhibition / Q.C.	Filter wavelength(nm)	Shaker E Use shaker		
Print options	456 456 436 496 438 600			
Data analysis	Map layout			
Data	• 1 2 3 4	5 6 7 8	9 10 11 12	STD Cenc. STD01 NA
	► A			STD02 NA

#### b 🔨 Two Points

File Setup Help					Standby	Connected
Protocol select function	Parameters	Station method	Dista mation	Two point interval		
Basic parameters	End Point Two Points Kinetics	<ul> <li>Immediate</li> <li>Delay</li> </ul>	<ul> <li>Continuous</li> <li>Stepping</li> </ul>	5 🖶 sec		
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Filter wavelongth (m) Main1 405 - Rof 1 406 -	Shaker Use shaker				
Print options	Main2 405 - Ref2 405 -					
lata analysis	Map layout					
Data	• 1 2 3 4	5 6 7	8 9 10 1	1 12 STD Conc. STD01 N.A STD02 N.A		

c 

 Kinetics: Kinetics measuring method can only select main filter without reference filter

File Setup Help														Standby	Connecte
Plate in/out Black Sha	aker	Incubato	or O	Fiffer tune	Post	processing Starting m	sthod		Plate mot	on	Averag	pe rate	-1		
Basic parameters	End F	oint	Two Poi	nts	Kinetics	<ul> <li>Immed</li> <li>Detay</li> </ul>	ate		<ul> <li>Contin</li> <li>Steppi</li> </ul>	uous ng	Maxin Total Time I	tum Abs. Jeita Abs. o max. rate			
Quantitative / Cat off / Ratio/Inhibition / Q.C	Filter w	avelength(r	nm) ]			Shakar Use shi	ikar		Ke	netic method	Time 1 Avera	o max. Abs. ge rate	-		
Print options		4400 1							Me Me	asure numbe asure interva	rs 3 4	송 종 동ec.			
Data analysis	Map layo	ut													
Data	•	1	2	3	4	56	7	8	9	10	11	12	STD01 N	A	
	► A								1				STD02 N	42	

2. Filter wavelength: Users need to select the main filter wavelength for the desired experiment. In addition, users can also select a reference wavelength.

Filter wavelength(nm)	Reference filter
Main1 405 🗸	Ref.1 405 -

- 3. Starting method: Define when to start the selected experiment.
  - a . Immediate: Start measurement right after pressing the START tab
  - b 
     Delay: Users can define 0~999s as delay time before starting measurement.



- 4. Plate motion: To define how the plate is moved when measuring
  - a 
    Continuous: When measuring, the plate is translated smoothly during the entire motion stroke.

Plate motion	
Ontinuous	
Stepping	

 b Stepping: User can define the stepping intervals among 0~999 msec. In kinetic mode, there are variable stepping interval and fixed stepping interval to be selected.

Plate motion	
Continuous	Variable stepping interval
Stepping	Fixed stepping interval

5. Incubation: Users can define the incubator temperature by clicking the incubation tab. The temperature can be set from ambient  $15^{\circ}$ C to  $50^{\circ}$ C.

Activato
Activate
-04

6. Shaker: The shaker of the instrument shakes with three types of speed, and the shaking time can be arranged among 0~999s





7. Two point interval: Users can select the two point interval among 3~999s



- 8. Kinetic method, numbers, and interval: In kinetic measurement mode, user can select the data calculation method, test cycles, and cycle interval.
  - a < Kinetic method: Uses can select Average rate, Maximum rate, Maximum OD, Total delta OD, Time to max slope, Time to max OD for mapped wells calculation.

Kinetic method	Average rate 🔹
Measure numbers	Average rate Maximum rate
Measure interval	Maximum Abs. Total delta Abs.
	Time to max. rate Time to max. Abs.

- b Measure number: User can enter the measuring numbers among 3~255 cycles.
- c Measure interval: User can enter the measure interval. They are among
   4~65535s in continuous motion, and 6~65535s in stepping motion.

Kinetic method	Average rate
Measure numbers	3
Measure interval	4 🔹 sec.

# Well Mapping

The M965 Mate 2.0 USB provides five types of well for the user to define 96-well map, also including define each sample well ID. Moreover, the user can save the mapped wells and reload them for further uses.

1. Save and load map layout:

Users can load or save their map layout from File/ Load (Data or Map) or Save (Data or Map) functions



- 2. Well mapping method:
  - a Select the well type to be defined (Blank, Positive, Negative, Sample, Standard) on the map layout. On the right side, enter the concentration values if standard is selected.

Map lay	/out											6	STD Conc
	1	2	3	4	5	6	7	8	9	10	11	12	STD01 NA
A													STD02 N.A
		_		_		_							STD03 N.A
В													STD04 N.A
С													STD05 N.A
													STD06 N.A
D													STD07 N.A
_							_						STD08 N.A
E													STD09 N.A
-													STD10 N.A
	Blank		1										STD11 N.A
G	Positive												STD12 N.A
i	Vegative												STD13 N.A
H	Sample												STD14 N.A
	Standard		- Fill dir	ection		Replicate d	irection	Nex	t fill number	r Reg	licate num	per	STD15 N.A
ype	Sample	•	O Roy	v	lumn	Row (	Column	1	-	1	-		Input range:

Note: Sample is the only available type in kinetic mode.

b 
Select the fill and replicate directions, enter next fill number, and replicate number.



- c > Use mouse to draw an area, which wells are to be placed with selected type.
- Map layout STD Conc. 1 2 3 4 5 6 7 8 9 10 11 12 STD01 N.A STD02 N.A А STD03 N.A в STD04 N.A STD05 N.A С STD06 N.A D STD07 N.A STD08 N.A Е STD09 N.A STD10 N.A Fill F STD11 N.A Modify STD12 N.A G Clear STD13 N.A Clear Group н STD14 N.A Clear All STD15 N.A Fill direction Next fill number Replicate number Replicate direction Type Standard Input range: 0.001~99999.9 Row Oclumn Row
   Column -1 1 -
- d Right click on the mouse to select the fill option.

#### $e \sim$ $\,$ The selected ten standards are thus located on the well map.

Map layo	out												STD Co	
	1	2	3	4	5	6	7	8	9	10	11	12		1.000
А	STD01 C01-1	STD06 C06-1											STD01	1.000
в	STD02 C02-1	STD07 C07-1											STD03 STD04	1.000
с	STD03 C03-1	STD08 C08-1											STD05	1.000
D	STD04 C04-1	STD09 C09-1											STD07	1.000
E	STD05 C05-1	STD10 C10-1											STD08 STD09	1.000 1.000
F													STD10	1.000
													STD11	N.A
G													STD12	N.A
													STD13	N.A
Н													STD14	N.A
Type S	itandard	-	Fill dire	ction	mn C	Replicate dir	ection Column	Nex 11	t fill number	r Rep 1	licate numbe	er	STD15 Input rai 0.001~9	N.A nge: 199999.9

- 3. Fill and replicate well:
  - a 
    Fill direction: To number the sequence of selected sample type in column or raw direction.
  - b Replicate direction: To number the sequence of the replicates of selected sample type in column or raw direction.

Example of filling and replicating the well map

	1	2	3	4	5	6	7
A	Star	t 🔨	Samp	le x2			
в	1002	uon	1-1	2-1	Rep	licate	x 4
с			1-2	2-2			
D	Replica	te	1-3	2-3			
Е	(Colurr	in)	1-4	2-4			
F							
G			(Ro	nn bw)			



- 4. Blank, positive control, and negative control each has only one name (BLK01, POS01, NEG01).
- 5. Standard can be configured as 1~15 names(STD01~STD15)
- 6. Sample has 96 defaults names most (SAM01~SAM96).

- 7. Types of well:
  - a > BLK: Which is painted with light green background on the well map
  - b > POS: Which is painted with light red background on the well map
  - $c \sim \ \ \mbox{NEG:}$  Which is painted with light blue background on the well map
  - d  $\sim$  Sample: Which is painted with light orange background on the well map
  - e Standard: Which is painted with light purple background on the well map Users must fill in the concentration values of selected standards in ascending or descending order.

	1	2	2	4	5	6	7	0	0	10	11	10	STD Co	nc.
	1	2	3	4	3	0	-	0	9	10	11	12	STD01	1.000
Α	BLK01 Z01-1	BLK01 Z01-2	BLK01 Z01-3	BLK01 Z01-4	BLK01 Z01-5								STD02	1.000
	POS01	POS01	POS01	POS01	POS01								STD03	1.000
В	P01-1	P01-2	P01-3	P01-4	P01-5								STD04	1.000
с	NEG01	NEG01	NEG01	NEG01	NEG01								STD05	1.000
v	N01-1	N01-2	N01-3	N01-4	N01-5								STD06	N.A
D	SAM01 T01-1	SAM02 T02-1	SAM03 T03-1	SAM04 T04-1	SAM05 T05-1								STD07	N.A
	STD01	STD02	STD03	STD04	STD05								STD08	N.A
Е	C01-1	C02-1	C03-1	C04-1	C05-1								STD09	N.A
-													STD10	N.A
F													STD11	N.A
G													STD12	N.A
													STD13	N.A
н													STD14	N.A
_			Eill alles			i Antinata di		No	vt fill numbo	r Dor	licoto numi		STD15	N.A
/pe St	tandard	•	Row	© Colui	mn O	Row	Column	6	AL III HUMDE	1 Rep		Jei	Input ra	nge: 19999 9

- 8. Edit sample ID
  - a. After creating Sample wells at the Map layout, right click the mouse to select the Edit ID option at the pop-up window, and key in the sample ID as required.

•	1	2	3	4	5	6	7	8	9	10	11	12
► A	SAM01 T01-1	SAM07 T07-1	SAM01 T01-2	SAM02 T02-2	SAM03 T03-2							
в	SAM02 T02-1	SAM08 Fill	SAM01	SAM02 T02-3								
С	SAM03 T03-1	Modify										
D	SAM04 T04-1	Clear Clear Gr	roup									
Е	SAM05 T05-1	Clear Al										
F	SAM06 T06-1	T12-1	2									
G												
н												

	1	2	3	4	5	6	7	8	9	10	11	12
► A	SAM01	SAM07	SAM01	SAM02	SAM03							
в	SAM02 T02-1	See ID nan	ne	The second s								
С	SAM03 T03-1	20180	061110		OK							
D	SAM04 T04-1	T10-1		1						R	[	
E	SAM05 T05-1	SAM11 T11-1										
F	SAM06 T06-1	SAM12 T12-1										
G												
Н									1			

b. Check the sample ID: Those named sample wells will come up a \* mark behind the replicate number. Moving the mouse cursor to the well and the ID will pop up automatically.

•	1	2	3	4	5	6	7	8	9	10	11	12
► A	SAM01 T01-1 *	SAM07 T07-1	SAM01 T01-2 *	SAM02 T02-2	SAM03 T03-2							
в	SANS SAMO T02 T01-1		SAM01 T01-3 *	SAM02 T02-3								
С	SAIL [2018] T03-1	T09-1	SAM01 T01-4 *									
D	SAM04 T04-1	SAM10 T10-1										
Е	SAM05 T05-1	SAM11 T11-1										
F	SAM06 T06-1	SAM12 T12-1										
G												
н												

c. Auto ID naming of replicated wells: If the sample has several replicates, it is only to name any picked one, and the rest ID will be automatically created.

	1	2	3	4	5	6	7	8	9	10	11	12
A	SAM01 T01-1 *	SAM07 T07-1	SAM01 T01-2 *	SAM02 T02-2	SAM03 T03-2							
В	SAM02 T02-1	SAM08 T08-1	SAM01 3 T01-3 *	SAM01 T01-2 *								
С	SAM03 T03-1	SAM09 T09-1	SAM01 T01-4 *	[2018061	.110]							
D	SAM04 T04-1	SAM10 T10-1										
E	SAM05 T05-1	SAM11 T11-1		ĺ								
F	SAM06 T06-1	SAM12 T12-1								2		
G												
Н												

•	•	1	2	3	4	5	6	7	8	9	10	11	12
	4	SAM01 T01-1 *	SAM07 T07-1	SAM01 T01-2 *	SAM02 T02-2	SAM03 T03-2							
► E	з	SAM02 T02-1	SAM08 T08-1	SAM01 T01-3 *	SAM02 T02-3								
(	c	SAM03 T03-1	SAM09 T09-1	SAM01 T01-4 *									
[	D	SAM04 T04-1	SAM10 T10-1										
E	E	SAM05 T05-1	SAM11 T11-1										
F	=	SAM06 T06-1	SAM12 T12-1										
(	G												
ł	H												

d. Amend or cancel sample ID: Right click the mouse to select the Edit ID option, then amend the ID or remove ID.

•	1	2	3	4	5	6	7	8	9	10	11	12
► A	SAM01 T01-1 *	SAM07 T07-1	SAM01 T01-2 *	SAM02	SAM03		X					
в	SAM02 T02-1	SAM08 T08-1	SAM01 T01-3 *	Se ID name								
с	SAM03 T03-1	SAM09 T09-1	SAM01 T01-4 *	Test			OK					
D	SAM04 T04-1	SAM10 T10-1	l			6	2					
E	SAM05 T05-1	SAM11 T11-1										
F	SAM06 T06-1	SAM12 T12-1										
G												
H I												

•	1	2	3	4	5	6	7	8	9	10	11	12
► A	SAM01 T01-1 *	SAM07 T07-1	SAM01 T01-2 * 🔾	SAM02 T02-2	SAM03 T03-2							
в	SAM02 T02-1	SAM08 T08-1	SAM SAM	01 AM02 2* 2-3								
С	SAM03 T03-1	SAM09 T09-1	SAM_T01-4 *									
D	SAM04 T04-1	SAM10 T10-1										
Е	SAM05 T05-1	SAM11 T11-1										
F	SAM06 T06-1	SAM12 T12-1										
G												
н												

# **Quantitative Measuring Method**

The M965 Mate 2.0 USB provides four types of Quantitative method, i.e. Curve on plate, Stored curve, Standard line, and Concentration factor.

- Curve on plate: Use the standard on the well plate for the calibration curve calculation. There are seven types of curve fitting equations on the M965 Mate 2.0 USB
  - a Linear regression
  - b . Quadratic polynomial
  - c 
     Cubic polynomial
  - d 
     Point to point
  - e Cubic spline
  - f > 2 parameters logit-log
  - g 4 parameters logistic
  - h · Advance BIO (Option function)

Plate in/out 🕞 Shaker	Incubator O Filter tune 🕹 Post processing	
otocol select function	Ouseflate settings	
Basic parameters	Curve on plate Stored curve Standard line Concentration factor concentration unt	
	Data curve fit X-scale Y-scale User key in	
Quantitative / Cut off / RatioInhibition / Q.C.	Linear O Linear O Linear Control Contr	
	Quadratic polynomial Cubic polynomial	
Print options	Point to point Cubic spline Double Calculation (S/CO) ratio	
ata analysis	2 parameters logit-log 4 parameters logistic fresult > threshold then	
Data	Advance BIO	
Data		
special function		
Advance BIO	Ratio / hibibition settings Durinition of RD	
	○ R:tto: BB0 %	
	C.C. sattings General equation 1, in- eRC + article - c++ H	
START		
OWNER	003	
20	004:	

2. Stored curve: Users can load their stored curve for quantitative measurement, these curves with file extension ".cuv".

ile Setup Help		Standby	Connecte
🖉 Plate in/out 🔒 Shaker 🔒	Incubator 🔘 Filter tune 🕹 Post processing		
rotocol select function			
Basic parameters	Curve on plate Stored curve Standard line Concentration factor		
Cusic parameters	File name		
Quantitative / Cut off /	Se Load File		
Ratio/Inhibition / Q.C.	Gig 🚱 « Users » microplate » StdCurve • 49 Search StdCurve P		
Print options	Organize + New folder 🔠 + 🛄 🚱		
	E Recent Places Name Date modified Type		
ata analysis	sample.cuv 3/08/2018 11:36 AM CUV File		
Data	Libraries		
norial function	Music #		
pecial uncaon	E Pictures		
Advance BIO			
	Ro Homegroup		
	a 🖉 Computer - +		
	Filename: sample.cuv + CurveFiles (".cuv/		
START	Open 👻 Cancel		
	Press prosition ( If D' a true then Place) D(C = OO1		
	Contraction of Sec. Contract (Contraction)		

 Standard line: User can use the Abs=A\* Conc+B equation, and enter the values of A and B to calculate a standard line.

The value of A can be : -999999.999 ~ +999999.999 The value of B can be : -999999.999 ~ +999999.999



4. Concentration factor: User can enter a factor for calculating the concentration. The value of F can be : -999999.999  $\sim$  +999999.999

File Setup Help		Standby	Connected
💅 Plate in/out 🔒 Shaker 🚦 I	Incubator O Filter tune B Post processing		
Protocol select function	Ouantilative settings		
Basic parameters	Curve on plate Stored curve Standard line Concentration factor Unit None		
Quantitative ( Cut off /	Cenc: = F * Abs		
RatioInhibition / Q.C.			
Print options	Dataff settinge         Double         Calculation         (SiCO) ratio		

 Measurement unit: Users can select 15 types of measurement unit "None", "G/dL", "U/L", "G/L", "ug/dL", "ABS", "mg/dL", "OD", "mABS", "U/mL", "ug/mL", "mEq/L", "mmol/L", "umol/L", "ng/mL". When "None" is selected, user can enter the desired measurement unit

concentration u	nit
Onit	None -
◎ User key in	

#### **Cutoff Measuring Method**

The M965 Mate 2.0 USB provides four types of Cutoff measuring method.

1. Single cutoff method: User can enter a threshold of 0.0000~4.0000, and define OD result to be positive or negative.



 Double cutoff method: Users can define the high and low thresholds. The high and low values can be among 0.0000~4.0000. The M965 Mate 2.0 USB determines OD results that are higher than high threshold, lower than low threshold, or between low and high thresholds to be positive(+), negative(-), or in-between (\*) respectively.

File Setup Help						Standby	Connected
💅 Plate in/out 🔒 Shake	r 🗼 Incubator 🔘 Filter t	une B Post proce	prùia				
Protocol select function	QuartEstive settings						
Basic parameters	Curve on plate	Stored curve	Standard line	Concentration factor	R Unit None -		
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Data curve Rr Linear regression	- X-scala - W-timue C) Leg10	Y-scale All Covar		C User key in		
Print options	Cutoff settings	Bathla	Coludation				
Data analysis	High threshold :	1 If re	Calculation suit > threshold then	(SrCO) nabo			
Data	Low threshold Cutoff label : + / * / -	01	Vegative(-)				

3. Calculation cutoff method: User can create a maximum of four formulas as the thresholds calculation and categorize the OD readings into 5 groups.

The equation listed below is applied to construct the thresholds with given a, b and c values.

EQn = a \* PC + b \* NC + c,

Where  $\underline{PC}$  means Positive Control, and  $\underline{NC}$  means Negative Control. The value of a, b and c can be -1000.000 ~ +1000.000

The calculated threshold values must follow the rule below:

EQ1 > EQ2 > EQ3 > EQ4

Example: With four thresholds applied, the OD reading higher than EQ1, between EQ1 and EQ2, between EQ2 and EQ3, between EQ3 and EQ4,or below EQ 4 is labeled by "++", "+", "\*", "-" or "--" respectively.



4. S/CO ratio method: User uses the ratio of sample OD divided by CO value as the benchmark, and also key in the high and low thresholds. The M965 Mate 2.0 USB will then determine S/CO ratio that are higher than high threshold, lower than low threshold, or between low and high thresholds to be positive(+), negative(-), or in-between (\*) respectively.

The equation listed below is applied to construct the CO value with given a, b and c values.

CO = a \* PC + b \* NC + c

Where PC means Positive Control, and NC means Negative Control.

The value of a, b and c can be -1000.000  $\sim$  +1000.000



# **Ratio/Inhibition Calculation Method**

Select B0 as the standard value to calculate the rest of the plate well Bn

- 1. Ratio/Inhibition operating procedure
  - a  $\sim$  Ratio = (Bn/B0)%
  - b · Inhibition = 100% (Bn/B0)%
  - c < Must have sample on B0 position or the software will show error
  - d 

     If the selected Bo has replicate number greater than one, the actual B0 value will be the average reading of this sample.
  - e > If B0 value is 0, the software will show error
  - f If ratio is over 200%, the software will show HI; if lower than -200%, the software will show LO

File Setup Help		Standby	Connected
🥖 Plate in/out 🛛 📳 Shak	er 📕 Incubator 🔘 Filter tune 🐻 Post processing		
Protocol select function	Qualification		
Basic parameters	Curve on plate Stored curve Standard line Concentration factor		
Quantitative / Cut off / Ratio/Inhibition / Q.C.	Data care fit Nación Vación Linear regession + @ Linear @ Linear Cargo C stagio		
Print options	Cutoff settings Single Double Calculation (S/CO) ratio		
Data analysis Data	Thresholds         0         Viresult > thoushold then           Cutoff tabel: + / -         (B) Polation(+)         Control tabel: + / -		
Special function			
Advance BIO	Fanto / Influidon settings         Definition of BD           © Ratio - BEBO %         Influidion : 100-BED %         A • • 1 • •           0 C = Settings         Implication of BD         A • • 1 • •		
START			

# **Q.C. Calculation Method**

The purpose of the QC Calculation Method is to determine the reliability of the experiment.

- 1. At most 4 equations are applied to obtain the calculation results, QC1, QC2, QC3 and QC4.
- Combining above QCs with logic operators OR, AND, and XOR to obtain the QC calculation result. The truth or falseness of QC decides the experiment to be pass or fail.
- 3. The value of a can be  $-1000.000 \sim +1000.000$
- 4. The value of b can be  $-1000.000 \sim +1000.000$
- 5. The value of c can be  $1000.000 \sim +1000.000$
- 6. The value of H can be -9999999.999 ~ +9999999.999
- 7. The value of L can be -9999999.999 ~ +9999999.999

ile Setup Help		Standby	Connecte
Plate in/out Baker	Incubator O Filter tune 📳 Post processing		
rotocol select function	Displaying entropy		
Basic parameters	Curve on plate Stored curve Standard line Concentration factor		
	Detaicurve fit X-scale Y-scale Detaicurve fit		
Quantitative / Cut off / Ratio/Inhibition / O C	Linear regression		
Taroniniotion q.o.	Cutoff settings		
Print options	Single Double Calculation (S/CO) ratio		
ata analysis	Threshold 0 #result > threshold then		
Data	Cutoff label : + / - O Negative(-)		
pecial function			
140 J 10 10 10 10 10 10 10 10 10 10 10 10 10			
Advance BIO	Kato / Inhibition settings Deficition of the		
Advance BIO	Ratio (Inhibition of Section)           Ratio ElBO %         (8) Inhibition 100-B/80 %         Definition of B0           A         1		
Advance BIO	Rate / Inviolation settings     Definition of BD       Rate Billion     (B) Inhibition 100-BiBO %     A *       QC settings     Consertioned for the construction		
Advance BIO	Hato (Inhibition Settings)     Definition of BD       Rate ElEO %     (8) Inhibition 100-BIEO %     A       Q.C. settings     General equation : L <= APC + bNC + c <= H		
Advance BIO	Kato (Inhibition Settings)     Definition Of BD       Ratio ElEO %     @ Inhibition 100-5/80 %     A        0.C.settings     General equation : L <		
Advance BIO	Kato     Letto     Definition of BD       Ratio     BED %     @ Inhibition 100-5/80 %     A        O.C. settings     General equation: L_mePC+ bNC+c <- H		
Advance BIO	Hato (Inholiton settings)     Definition of BD            • Ratio EIE0 %         • M inholition 100-5/50 %         A ~ 1 ~ 1 ~ 1 ~ 1 ~ 1 ~ 1 ~ 1 ~		

# **Printing Options**

Users can input project name, operator name, and experiment note to differentiate experiment reports. Users can also check boxes in the Section for printing to determine which items need be printed on the report.

Basic parameters   Guantitative / Cut off / Ratio/Inhibition / Q.C.   Print options   Note:   User : admin   Note:   Special function   Advance BIO     Sections for printing   Image: Calibration   Cancel all	otocol select function	Print options			
Quantitative / Cut off / Ratio/Inhibition / Q.C.     Print options     ata analysis     Data     Sections for printing     Sections for printing     Image: Sections for printing <td>Basic parameters</td> <td>Title setting date/time of the pe</td> <td>formed measurement</td> <td></td> <td></td>	Basic parameters	Title setting date/time of the pe	formed measurement		
Print options       Note :       •         ata analysis       •       •         Data       Sections for printing       •         special function       If the       If Data       If Q.C.         Advance BIO       If Results       Cut off       Kinetics       Select all         If Cellbretion       If Retio/Inhibition       Cancel all	Quantitative / Cut off / Ratio/Inhibition / Q.C.	Project name : User : ar	dmin		
ata analysis         Data         Sections for printing         Ipecial function         Image: Title	Print options	Note :	200-014		
Data       Sections for printing         special function       I Data       I Q.C.         Advance BIO       I Results       Cut off       Kinetics       Select all         Celibration       Rebolinibition       Cancel all	ata analysis				
Special function     Image: Title     Image: Data     Image: Q.C.       Advance BIO     Image: Results     Image: Cut off     Image: Kinetics     Select all       Image: Calibration     Image: Ratio/Inhibition     Image: Ratio/Inhibition     Cancel all	Data	Sections for printin	g		
Advance BIO       Image: Results     Cut off     Kinetics     Select all       Image: Celibration     Retro/Inhibition     Cancel all	pecial function	🔽 Title	🔽 Data	<b> ⊇ Q</b> .C.	
Calibration Ratio/Inhibition	Advance BIO	Results	🖂 Cut off	C Kinetics	Select all
		Calibration	C Ratio/Inhibitio	n	Cancel all
	START				

# **Interpreting the Results**

The M965 Mate 2.0 USB will generate the result data after the experiment is completed. Press the Data tab on the left window, and select tab Results, Calibration, Data, Cutoff, Ratio/ Inhibition, Q.C, or Kinetic to view their experiment results.

1. Results: Click on the Results tab to review the parameter setup, plate layout, Raw OD, and Con Matrix of the experiment.

File Setup Help												Standby	Connecte
Plate in/out	aker 🗼 Inc	ubator C	) Filter	tune 😸	Post process	ang							
Protocol select function	Results	Calibra	tion	Data	Cut off	Ratio	aphibition	nc	Kinetice	1			
Basic parameters				17444		(Galas		140.00	1				
Quantitative / Cut off /	Protocol parameters												i i
Ratio/Inhibition / Q.C.	Experiment file:	C.\Users\96											
Print options	Measureme type:	End point											Ŧ.
Data analysis	Main_1 filter(nm):	405											
Data	Starting method;	Immediate											
Citta	Plate mode:	Continuous											
Special function	Need shake:	NO											
Advance BIO	Need incubator	NO			1								
	Need extrapolation	NO		_				_			_		
	method:	Curve on plate			_			_					
START	standards	5											
Olivit	method:	regression									_	-	
	Plate layout												
			3	1		C	e	2	0	0	10		3

2. Calibration: When Quantitative is checked, calibration curve will be displayed according to the setting parameters.

le Setup Help 🖻 Plate in/out	aker 🚺 In	cubator (	) Filter tu	ne 🔊 P	ost processi	ng						Stan	dby Conne
otocol select function	Pecuito	Calibr	ation	Data	Cutoff	Dataio	hition	0.0	Kinetics				
Basic parameters	Neouis	Castor		Data	ouroir	Ranows	abaton	40.	Kincaca	·			
	Plate lay							-					
Quantitative / Cut off /	BEDEACHDRON BROOM	1	2	3	4	5	6	7 3 48	IS	-	-	-	2
Raboinnibilion / Q.C.	A	SAM01-1	SAM02-1	SAM03-1	SAM04-1	SAM05-1	SAM05-1	SAM					AM12-1
	B	SAM01-2	SAM02-2	SAM03-2	SAM04-2	SAM05-2	SAM06-2	SAM		1 10 11 11 10 10 10 10 10 10 10 10 10 10		0	AM12-2
Print options	G	SAM01-3	SAM02-3	SAM03-3	SAM04-3	SAM05-3	SAM06-3	SAM			1		AM12-3
S 81.	D				POS01-1	STD01-1	STD02-1	STD			/		
Data	E				POS01-2	STD01-2	STD02-2	STD		-			1
	F		-		BLK01-1	STD01-3	STD02-3	STD	-	-			
	G				NEG01-1	STD01-4	STD02-4	STDO	2			1	
pecial function	н		<u>}</u>		NEG01-2	STD01-5	STD02-5	STD	1	1	11	001	ic
Advance BIO	Source									-			
		1	2	3	4	5	6	7	8	9	10	11	12
	A	-0.217	-0.217	-0.217	0.015	0.180	0.269	0.982	2.104	2.643	-0.217	-0.217	0.042
	в	-0.217	-0.217	-0.217	0.033	0.179	0.272	0.974	2.092	2.623	-0.217	-0.217	-0.217
	С	-0.217	-0.217	-0.217	0.010	0.169	0.264	0.974	2.049	2.639	-0.217	-0.217	-0.217
OTADT	D		1		0.009	0.175	0.262	0.975	2.091	2.638			
START	E				0.001	0.172	0.269	0.545	2.091	2.635			
	F				0.000	0.175	0.271	0.549	2.126	2.635			
	G				0.002	D.173	0.266	0.548	2.092	2.658			
	H				0.018	0.176	0.265	0.539	2.090	2 664			

- a S Layout: Shows the well mapping layout of the plate. Different types of well uses a different color to represent.
- $b \sim \$  Source data: Shows the source data for the quantitative measurement.

- i. In end point measurement, if there is no reference filter then the main filter (M1) data is the source data. If there is reference filter then M1 R1 is the source data.
- ii. In Two points measurement if there is no reference filter, the source data will be M1
- iii. In Two points measurement if there is reference filter then the source data will be D1=M1-R1
- iv. During Kinetic measurement, user cannot use reference filter, the M1 data will be the source data
- c > Calibrators: Use C01~C15 to represent each STD's name and OD value, and show the average measurement and the standard concentration value.
- d 
  Calib Curve: When using standard curve (Curve on plate or stored curve), apply selected fitting method to create a standard curve and its coefficients.
- e Residuals table: Use C01~C15 to show standard concentration values (C set), Average Abs, calculated concentration (Ccal), and their difference (Ccal-Cset).
- f Curve Viewer: User can double click on the curve to enable the curve viewer.
   User can also store the curve by pressing the Save Curve tab on the right.
   The default curve is stored in M965 Mate 2.0 USB \StdCurve directory.



3. Data sheet: The raw data and calculated results of entire mapped wells can be listed in one data sheet. The sheet provides information about Name, Well location, Replicate numbers, Abs, SD, CV%, Conc, Measuring unit, Cutoff, Inhibition % and Well ID name. The average of replicated data is displayed by "\_avg" next to the well ID.

Plate in/out	aker 📕 Inci	ubator O	Filter tune	Post pro	cessing						
rotocol select function	Results	Calibratic	Data	Cut	off Ratio	Vinhibition	0.6	Kinetics			
Basic parameters											110
	Name	well	Replicate	Abs	SD	CV%	Conc	Unit	Cutoff	R0(%)	ID )
Quantitative / Cut off /	POS.CONT										
Ratio/Inhibition / Q.C.	POSt	D4	1	0.009	557-1			1754		-	
1	POSt	E4	2	0.001		-					
Print options	POS1_avg	+++> 1		0.005	0.004	80.00	212.864	None	N/A	N/A	
1	NEG.CONT						_				
ata analysis	NEG1	G4	1	0.002							
Data	NEG1	H4	2	0.018			110				-
	NEG1_avg	+++		0.010	0.008	80.00	215.946	None	N/A	N/A	
	SAMPLES										
Special function	SAM1	A1	1	-0.217		100					
A CONTRACTOR OF	SAM1	B1	2	-0.217			177.4				
Advance BIU	SAM1	CI	3	-0.217	111	100	1112	111			
	SAM1_avg	143	2	-0.217	0.000	ERR	-67.726	None	N/A	N/A	
	SAM2	A2	1	-0.217							
	SAM2	B2	2	-0.217							
	SAM2	C2	3	-0.217							
START	SAM2_avg	1220	1117	-0.217	0.000	ERR	-57.726	None	N/A.	N/A	
START	SAM3	A3	1	-0.217			-				
	SAM3	B3	2	-0.217		-					
	SAM3	C3	3	-0.217							
	SAM3_avg	225	120	-0.217	0.000	ERR	-57.726	None	N/A	N/A	
	SAM4	A4	1	0.015		1	-	121	11100	10000	

 Cutoff results: Clicking the Cutoff tab, the M965 Mate 2.0 USB shows the cutoff symbols on mapped wells. Depending on the conditions, there will be five symbols to represent the cutoff results.

(++)、(+)、(\*)、(-)、(--)

Setup Help												Standby	Connecte	
🖉 Plate in/out 📊 🔒 Sha	ker	1	Incubato	Filte	rtune 👪	Post process	ng							
rotocol select function	Î	Resul	ts	Calibration	Data	Cut off	Ratio/n	hibition	Q.C.	Kinetics				
Basic parameters	F		1	2	3	4	5	6	7	8	9	10	11	12
Quantitative / Cut off /	,	A		1.0		-			+	+	+	-		
Ratio/Inhibition / Q.C.		в	-	1326	8 <b>2</b> 11		1526	81	+	+	+	45	1048	22
Print options		C		2943	8463	1 ¥ 1	2000	- S <b>-</b>	+	+	+		2.40	3 <b>9</b>
to anotheric		D					31 <b>9</b> 2	: <del>.</del>	÷	+	+			
na anaysis		E				-	(	8		+	+			
Data		F					1441	- 64	-	+	+			
pecial function		G				-			-	+	+			
Advance BIO		н				-			-	+	+			

 Ratio/Inhibition results: Clicking the Ratio/Inhibition tab, the M965 Mate 2.0 USB shows ratio or inhibition values of mapped wells. Data higher than 200% is shown Hi, and lower than -200% is shown LO.

le Setup Help												Standby	Connect
🌮 Plate in/out 🛛 🔂 Sha	ker 🚦	Incubator	Filter	tune 🐻	Post process	ing							
Protocol select function	Resu	its Ca	libration	Data	Cut off	RatioInf	ibition	Q.C.	Kinetics				
Basic parameters		1	2	3	4	5	6	7	8	9	10	11	12
Quantitative / Cut off /	► A	NaN96	NaN%	NaN%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	NaN%	NaN%	-Infinity%
Ratio/Inhibition / Q.C.	в	NaN%	NaN%	NaN%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	NaN%	NaN%	NaN%
Driet options	С	NaN%	NaN%	NaN%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	NaN%	NaN%	NaN%
Print options	D				-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%			
Data analysis	Е				-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%-			
Data	F				-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%			
	G				-infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-infinity%			
Special function	н				-infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%	-Infinity%			

6. Q.C results: Clicking the QC calculation method, the M965 Mate 2.0 USB shows the QC criteria, Pass condition, and Result on the data sheet.

File Setup Help												Standby	Connecte
plate in/out 👸 Shak	ker 🚺 Incuba	tor O Filter tune	Post	processing									
Protocol select function	Recutto	Calibration		The full	Datiofot	ibition	0.0	100	otice				
Basic parameters	Results	Calibraton			raconn		ator.	- Full	02003				
	Quality controls		-										
Quantitative / Cut off /	Controls:				_								
Ratio/Inhibition / Q.C.		Control	abs.	conc									
r i		PC	0.005	212.864									
Print options		NC	0.010	215.946									
Data anatysis	Criteria.					_							
Dete			Ú.		a		b		с		н		
Data		QC1:	1	<=	1	*PG	1	"NG	1	<=	1		
Special function		QC2	1	<=	1	*PC	1	*NC	1	<=	1		
		QC3	1	<=	1	*PC	1	"NC	1	<=	1		
Advance BIO		QC4	1	<#	t	*PC	1	*NC	1	<#	1		
	Pass condition:					-							
		if QC = TRUE then PASS											
		QC =	QC1	AND	QC2	AND	QC3	AND	QC4				
START	Result.						-						
		QC1:	FAIL	1									
		QC2	FAIL										
		QC3	FAIL										
		QC4	FAIL										

7. Kinetic results: When using the kinetic measuring method, M965 Mate 2.0 USB will display the kinetic curves for each mapped wells. User can check the reaction rate easily on this screen.

Results	Calibratio	on Data	a Cu	t off Rat	tio/Inhibition	Q.C.	Kinetic	s			
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B1	B2	B3	B4	B5	B6	B7	B8	В9	B10	B11	B12
C1	C2	C3	C4	C5	C6	C7	C8	C3	C10	C11	C12
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12

Double click on the selected well to show a detailed view of the well number and OD value at selected sampling number.

