



BioStone ELISA

Version – 1.0.12

Quick Guide

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1. Introduction

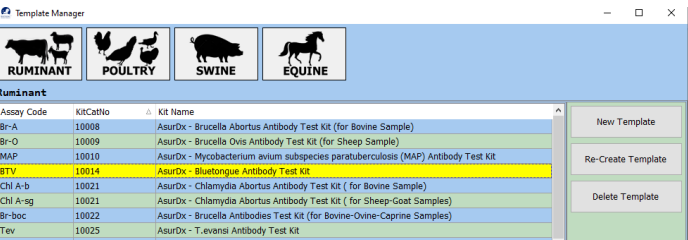
The BioStone AsurDx™ ELISA Analysis Software is a comprehensive analysis software developed exclusively for AsurDx™ ELISA Test kit users, who can safely store and analyze AsurDx™ ELISA test results. The software provides multiple templates for four different kinds of test kits (ruminant, poultry, swine, and equine). It can read data directly from some readers (such as BioTek reader), or users can manually input data. The software can generate data including OD values; titers; sample types; CV values; mean values; group number; and positive, negative, or doubtful test results. The software also supports five different languages.

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2. Template Preparation

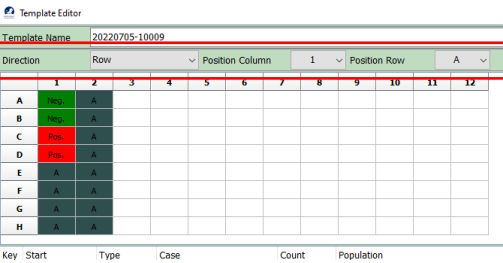
The template determines how you place the sample samples on the plate. So it's a compass that defines each pit. The creation of each template begins with an assay selection. So each template is only one kit and the sample test to be doneusing for. Before starting the Elisa test processes, it is important to create the template on the program and to make the physical layout suitable for this template. Some fields are required to be entered in the preparation of the template. Template Name, Owner, Case and Count fields.



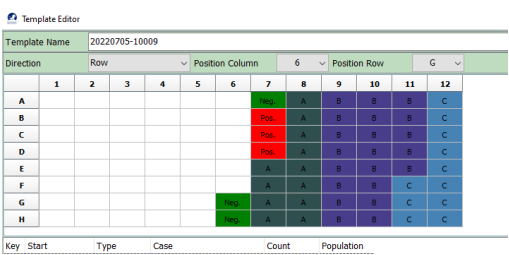
First choose a Kit Name. You can start preparing a template with the New Template button. Each template is associated with the selected kit.

2.1 Template Position selection

The Biostone ELISA program provides you with a flexible plate design. You can select the plate vertically or horizontally with **Direction** selection. With the **Position Column** and **Position Row** selections, positive and negative controls, samples can be started from the desired coordinate. There may be cases where a whole plate is not used, or there may be cases where a plate is used several times.



Field Name	Entered Value
Direction	: Row (Default)
Position Column	: 1 (Default)
Position Row	: A (Default)



Field Name	Entered Value
Direction	: Row (Default)
Position Column	: 6
Position Row	: G

2. Template Preparation

Template Editor												
Template Name 20220705-10009												
Direction	Column	Position Column	1	Position Row	A							
A	1	2	3	4	5	6	7	8	9	10	11	12
B	1	2	3	4	5	6	7	8	9	10	11	12
C												
D												
E												
F												
G												
H												
Key	Start	Type	Case	Count	Population							

Field Name Entered Value

Direction : Column

Position Column : 1 (Default)

Position Row : A (Default)

Template Editor												
Template Name 20220705-10009												
Direction	Column	Position Column	1	Position Row	D							
A												
B												
C												
D	1	2	3	4	5	6	7	8	9	10	11	12
E	1	2	3	4	5	6	7	8	9	10	11	12
F	1	2	3	4	5	6	7	8	9	10	11	12
G	1	2	3	4	5	6	7	8	9	10	11	12
H	1	2	3	4	5	6	7	8	9	10	11	12
Key	Start	Type	Case	Count	Population							

Field Name Entered Value

Direction : Column

Position Column : 1 (Default)

Position Row : D

2.2 Template of Positive and Negative Controls

The controls are always positioned at the available head of the plate. At least 1 negative and 1 positive control must be defined. By default, the program recommends working with at least 2 positive and 2 negative controls. The desired number can be entered in the count fields of the controls. Here are a few examples:

Template Editor												
Template Name 20220705-10009												
Direction	Row	Position Column	1	Position Row	A							
A	1											
B	1											
C	1											
D	1											
E												
F												
G												
H												
Key	Start	Type	Case	Count	Population							
1A-1B	Negative			2								
1C-1D	Positive			2								

Field Name Entered Value

Negative Count : 2 (Default)

Positive Count : 2 (Default)

Template Editor												
Template Name 20220705-10009												
Direction	Row	Position Column	1	Position Row	A							
A	1											
B	1											
C	1											
D	1											
E	1											
F												
G												
H												
Key	Start	Type	Case	Count	Population							
1A-1B	Negative			2								
1C-1E	Positive			3								

Field Name Entered Value

Negative Count : 2 (Default)

Positive Count : 3

2. Template Preparation

2.3 Case entry, change and delete

Samples should be grouped arbitrarily and each group should be expressed as a case. The number of samples belonging to the case is specified in the count field. No entry of a digit over the remaining number of wells on the plate is allowed. A case must contain at least 1 hole/area. Case name entry and Owner fields are required. The program does not allow to create a case if no data is entered in these two fields. Creates a new case line with the "New" button. It opens a blank line between "Insert" and two lines (case). The case selected with "Delete" is deleted.

Template Editor

Template Name: 20220725-10014

Direction	Row	Position Column	1	Position Row	A							
	1	2	3	4	5	6	7	8	9	10	11	12
A	Pos	A	A	B	B	B	B	B				
B	Pos	A	A	B	B	B	B	B				
C	Pos	A	A	B	B	B	B	B				
D	Pos	A	A	B	B	B	B	B				
E	Pos	A	A	B	B	B	B	B				
F	Pos	A	A	B	B	B	B	B				
G	Pos	A	A	B	B	B	B	B				
H	Pos	A	A	B	B	B	B	B				

Key	Start	Type	Case	Count	Population
1A-1B	Negative			2	
1C-1D	Positive			2	
A	1E-3H	Data	ABC Farm	20	
B	4A-6H	Data	XYZ Farm	40	

Case Buttons

- New : New case
- Insert : Insert case
- Delete : Delete case (selected line)

Required fields for the template:

- Case Count
- Case Name
- Owner Name

Case Details Form:

Case: XYZ Farm

Case 2:

Reason: Select

Owner: Select

Sample Date:

Sample Type: Select

Sample Age:

2.4 Population, Comments and Vaccine data entry

The Case, Population, Comments and Vaccine tabs under the template contain the footer information of the selected case. This information is stored differently and specific to each case. It is reflected in the reports. Therefore, it is recommended that you create a separate Case for each of your test group samples and check the accuracy of the information in the tabs.

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2. Template Preparation

Case

Population

Comments

Vaccine

Case

Case 2

Reason

Owner

Sample Date

Sample Type

Sample Age

Select

Select

Select

Select

Select

Select

Case Tab :

Case	: text	Owner	: select
Case 2	: text	Sample Date	: select
Reason	: select	Sample Type	: select
		Sample Age	: text

Case

Population

Comments

Vaccine

Population

Veterinarian

Grower

Complex

Location

Sub-Location

Animal Type

Species

Breed 1

Breed 2

Select

Select

Select

Select

Select

Select

Population Tab :

Population	: text	Sub-Location	: select
Veterinarian	: select	Animal Type	: select
Grower	: select	Species	: select
Complex	: select	Breed 1	: select
Location	: select	Breed 2	: select

Case

Population

Comments

Vaccine

Case Comment

Population Comment

Comments Tab :

Case Comment	: text
Population Comment	: text

Case

Population

Comments

Vaccine

Vaccine Age

Vaccine Name

Vaccine Date

Vaccine Tab :

Vaccine Age	: text
Vaccine Name	: text
Vaccine Date	: select

Note : Bold texts are mandatory data entry fields. Other fields are optionally entered.

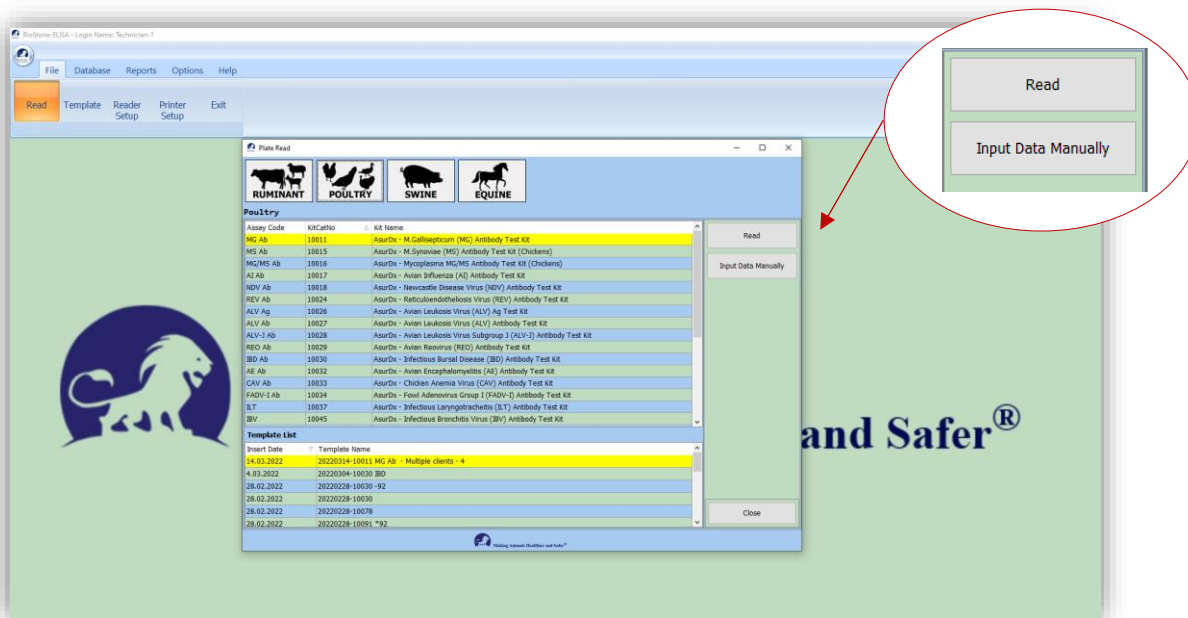
3. Reading and Saving

For the reading process, the kit to be used is selected first. (The selected kit is yellow).

As the second step, the template you have prepared before is selected under the screen. The prepared plate is placed at the entrance of the reader device. After checking and making sure of these steps, the 'Read' button is pressed and it reads. The Biostone ELISA program selects the correct filter according to the selected kit. The user is warned by giving the selected kit, template and filter value on a warning screen. With the confirmation to be given to the warning, the reading starts. If the device is not set to the correct value or if there is a problem, the program will not continue reading. Gives a warning. As a result of the reading made under the right conditions, the values read are displayed on the screen.

For alternative situations, the program also has a manual data entry option. Readings made with the OD value reading programs of the reader manufacturers can be entered by copy/paste from the manual entry section of the program.

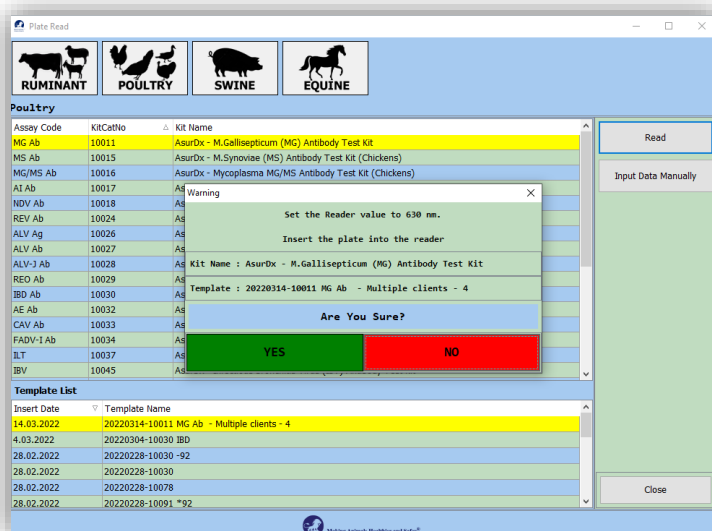
If a wrong kit or template was selected, repeat the reading with the correct selections.



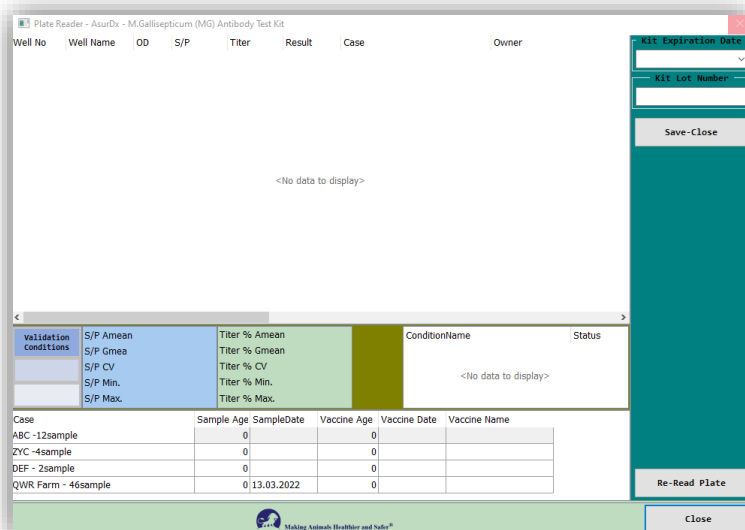
3. Reading and Saving

3.1 Reading with a reader device:

- Step-1**
- The reader is turned on and the plate is placed in the reader.
 - Assay group is selected. (Ruminant / Poultry / Swine / Equine)
 - The kit to be used is selected. (In the example 10011 MG Ab was selected.)
 - The template selected. (In the example 20220314-10011 MG Ab.. was selected.)
 - Press the 'Read' button.
 - The program displays the selected Kit and Template name and asks for confirmation.
 - If your selections in the warning message are correct, the reading is started by clicking the YES button. If you want to make corrections in your selections, NO is selected.



- The scanning process may take 1 minute or more.
- The following screen is displayed while reading.
- In case of error or problem, it can be read again with the 'Re-Read Plate' button.



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3. Reading and Saving

3.1 Reading with a reader device:

Step-2 OD values read from the reader can be examined here.

See the readings on the plate design figure. (Plate button) (1)

If the test validation is correct, "Validation Conditions : Valid" is displayed. (2)

Vaccination information for each "Case" can be optionally entered at the bottom of the screen. (4)

Well Name	S/P	Titer	Result	Case	Owner
1A Neg.	0.130				
1B Neg.	0.130				
1C Pos.	1.930				
1D Pos.	1.930				
1E Sample1	0.110	5.70	101 Neg	BCD 12a	BCD LAB
1F Sample2	0.130	6.77	122 Neg	BCD 12a	BCD LAB
1G Sample3	0.130	7.81	142 Neg	BCD 12a	BCD LAB
1H Sample4	0.180	5.21	91 Neg	BCD 12a	BCD LAB
2A Sample5	0.230	13.02	248 Neg	BCD 12a	BCD LAB
2B Sample6	0.300	15.63	303 Neg	BCD 12a	BCD LAB
2C Sample7	0.390	18.23	358 Neg	BCD 12a	BCD LAB
2D Sample8	0.400	20.83	414 Neg	BCD 12a	BCD LAB
2E Sample9	0.450	23.44	471 Neg	BCD 12a	BCD LAB
2F Sample10	0.500	26.04	529 Neg	BCD 12a	BCD LAB

Validation Conditions: Valid

Case: BCD 12a

Sample: 1, SampleDate: 0, Vaccine Age: 0, Vaccine Date: 0, Vaccine Name: 0

ConditionName: VCAPCOO, Status: True

ConditionName: VCAPCOO, Status: True

	1	2	3	4	5	6	7	8	9	10	11	12
A	0.130	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B	0.130	0.300	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C	1.930	0.350	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D	1.930	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
E	0.110	0.450	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
F	0.130	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
G	0.150	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
H	0.100	0.600	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CAUTION :

"Validation Conditions: Valid" and "Control Conditions: True" (2-3).

The following checks are made for different situations and the reading is repeated:

- Check the template design and check that the Pos-Neg controls are in the correct wells.
- Is the Reader working normally? See warnings on the Reader screen.
- When was the last time you updated the kit? Work with the latest updates by 'Kit Update' (5) with the admin user in the program.

File, Database, Reports, Options, Help

Update Application, Update Kits, Update Database, About

Update Kits

Last Update Date: 18.07.2022
Last Update Time: 18:30:05
Last Update Date: 18.07.2022 18:30:05
Close Date: 18.07.2022 23:00:00

Data is out of date

Update Kits

Apply updates

3. Reading and Saving

3.1 Reading with a reader device:

Step-3 'Kit Expiration Date' and 'Kit Lot Number' fields must be filled in mandatory.
Press the 'Save-Close' button to save the transaction.

Plate Reader - AsurRx - M.Gallisepticum (MG) Antibody Test Kit

Well No	Well Name	OD	S/P	Titer	Result	Case	Owner
1A	Neg.	0,010					
2A	Neg.	0,060					
3A	Neg.	0,140					
4A	Pos.	0,220					
5A	Pos.	0,300					
6A	Pos.	0,370					
7A	Sample1	0,550	211,45	5182	Pos	ABC -12sample	ABC FARM
8A	Sample2	0,450	167,40	4017	Pos	ABC -12sample	ABC FARM
9A	Sample3	0,710	281,94	7090	Pos	ABC -12sample	ABC FARM
10A	Sample4	0,790	317,18	8062	Pos	ABC -12sample	ABC FARM
11A	Sample5	0,220	66,08	1458	Pos	ABC -12sample	ABC FARM
12A	Sample6	0,300	101,32	2324	Pos	ABC -12sample	ABC FARM
1B	Sample7	0,015	-24,23	0	Neg	ABC -12sample	ABC FARM
2B	Sample8	0,070	0,00	0	Neg	ABC -12sample	ABC FARM
3B	Sample9	0,150	35,24	735	Neg	ABC -12sample	ABC FARM
4B	Sample10	0,230	70,48	1565	Pos	ABC -12sample	ABC FARM
5B	Sample11	0,310	105,73	2434	Pos	ABC -12sample	ABC FARM
6B	Sample12	0,390	130,96	3293	Pos	ABC -12sample	ABC FARM

Validation conditions: S/P Amean 158.076, Titer % Amean 3912.367, ConditionName VCsPCOD, Status True
Valid: S/P CV 126.474, Titer % Gmean 0, VCsPCOD - NCOD, Status True
S/P Min. -24.229, Titer % Min. 0
S/P Max. 585.903, Titer % Max. 15737

Case	Sample Age	Sample Date	Vaccine Age	Vaccine Date	Vaccine Name
ABC -12sample	0	0	0		
ZYC -4sample	0	0	0		
DEF -2sample	0	0	0		
QWR Farm - 46sample	39	13.03.2022	30	03.03.2022	Vaccine MG 001

Re-enter Data

Close

3. Reading and Saving

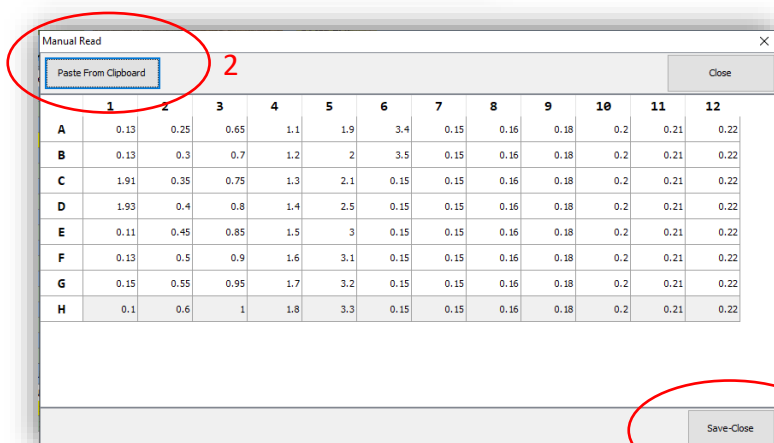
3.2 Manual Read – Copy/Paste :

- Step-1** Copy the data in the Excel or other file.
Select the cells of the plate (Green fields). Save it with Ctrl+C.

AsurDx™ M. Gallisepticum (MG) Antibody Test Kit												
PLATE LAYOUT DIAGRAM												
	1	2	3	4	5	6	7	8	9	10	11	12
A	Neg1	Sample5	Sample13	Sample21	Sample29	Sample37	Sample45	Sample53	Sample61	Sample69	Sample77	Sample85
B	Neg2	Sample6	Sample14	Sample22	Sample30	Sample38	Sample46	Sample54	Sample62	Sample70	Sample78	Sample86
C	Pos1	Sample7	Sample15	Sample23	Sample31	Sample39	Sample47	Sample55	Sample63	Sample71	Sample79	Sample87
D	Pos2	Sample8	Sample16	Sample24	Sample32	Sample40	Sample48	Sample56	Sample64	Sample72	Sample80	Sample88
E	Sample1	Sample9	Sample17	Sample25	Sample33	Sample41	Sample49	Sample57	Sample65	Sample73	Sample81	Sample89
F	Sample2	Sample10	Sample18	Sample26	Sample34	Sample42	Sample50	Sample58	Sample66	Sample74	Sample82	Sample90
G	Sample3	Sample11	Sample19	Sample27	Sample35	Sample43	Sample51	Sample59	Sample67	Sample75	Sample83	Sample91
H	Sample4	Sample12	Sample20	Sample28	Sample36	Sample44	Sample52	Sample60	Sample68	Sample76	Sample84	Sample92

OD630 INPUT												
	1	2	3	4	5	6	7	8	9	10	11	12
A	0.01	0.06	0.14	0.22	0.3	0.37	0.55	0.45	0.71	0.79	0.22	0.3
B	0.015	0.07	0.15	0.23	0.31	0.38	0.56	0.46	0.72	0.8	0.23	0.31
C	0.7	0.08	0.16	0.24	0.32	0.39	0.57	0.47	0.73	0.9	0.24	0.32
D	0.72	0.09	0.17	0.25	0.33	0.4	0.58	0.48	0.74	1	0.25	0.33
E	0.02	0.1	0.18	0.26	0.34	0.41	0.59	0.49	0.75	1.1	0.26	0.34
F	0.03	0.11	0.19	0.27	0.35	0.42	0.6	0.5	0.76	1.2	0.27	0.35
G	0.04	0.12	0.2	0.28	0.36	0.43	0.61	0.6	0.77	1.3	0.28	0.36
H	0.05	0.13	0.21	0.29	0.365	0.44	0.62	0.7	0.78	1.4	0.29	0.365

- Step-2**
- Press the "Input Data Manually" button(1) to reach the manual data entry screen.
 - Paste the data by pressing the "Paste from Clipboard" button(2) at the top of the "Manual Read" screen. Or write the data in each well.
 - Then finish the recording process by pressing the "Save Close" button(3).


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3. Reading and Saving

3.2 Manual Read – Copy/Paste :

Step-3 OD values read from the reader can be examined here.

See the readings on the plate design figure. (Plate button) (1)

If the test validation is correct, "Validation Conditions : Valid" is displayed. (2)

Vaccination information for each "Case" can be optionally entered at the bottom of the screen. (4)

CAUTION :

"Validation Conditions: Valid" and "Control Conditions: True" (2-3).

The following checks are made for different situations and the reading is repeated:

- Check the template design and check that the Pos-Neg controls are in the correct wells.
- Is the Reader working normally? See warnings on the Reader screen.
- When was the last time you updated the kit? Work with the latest updates by 'Kit Update' (5) with the admin user in the program.

3. Reading and Saving

3.2 Manual Read – Copy/Paste :

Step-4 'Kit Expiration Date' and 'Kit Lot Number' fields must be filled in mandatory.
Press the 'Save-Close' button to save the transaction.

Plate Reader - AsurRx - M.Gallisepticum (MG) Antibody Test Kit

Well No	Well Name	OD	S/P	Titer	Result	Case	Owner
1A	Neg.	0,010					
2A	Neg.	0,060					
3A	Neg.	0,140					
4A	Pos.	0,220					
5A	Pos.	0,300					
6A	Pos.	0,370					
7A	Sample1	0,550	211,45	5182	Pos	ABC -12sample	ABC FARM
8A	Sample2	0,450	167,40	4017	Pos	ABC -12sample	ABC FARM
9A	Sample3	0,710	281,94	7090	Pos	ABC -12sample	ABC FARM
10A	Sample4	0,790	317,18	8062	Pos	ABC -12sample	ABC FARM
11A	Sample5	0,220	66,08	1458	Pos	ABC -12sample	ABC FARM
12A	Sample6	0,300	101,32	2324	Pos	ABC -12sample	ABC FARM
1B	Sample7	0,015	-24,23	0	Neg	ABC -12sample	ABC FARM
2B	Sample8	0,070	0,00	0	Neg	ABC -12sample	ABC FARM
3B	Sample9	0,150	35,24	735	Neg	ABC -12sample	ABC FARM
4B	Sample10	0,230	70,48	1565	Pos	ABC -12sample	ABC FARM
5B	Sample11	0,310	105,73	2434	Pos	ABC -12sample	ABC FARM
6B	Sample12	0,390	139,96	3513	Pos	ABC -12sample	ABC FARM

Kit Expiration Date: 20.01.2024
Kit Lot Number: LOT 7901
Save-Close

Validation conditions	S/P Amean	Titer % Amean	ConditionName	Status
S/P Gmea	0	3912.367	VCsPCOD	True
S/P CV	126.474	3314.852	VCsPCOD - NCOD	True
S/P Min.	-24.229	0		
S/P Max.	585.903	15737		

Case	Sample Age	SampleDate	Vaccine Age	Vaccine Date	Vaccine Name
ABC -12sample	0		0		
ZYC -4sample	0		0		
DEF -2sample	0		0		
QWR Farm - 46sample	39	13.03.2022	30	03.03.2022	Vaccine MG 001

Re-enter Data
Close

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4. Generating Reports

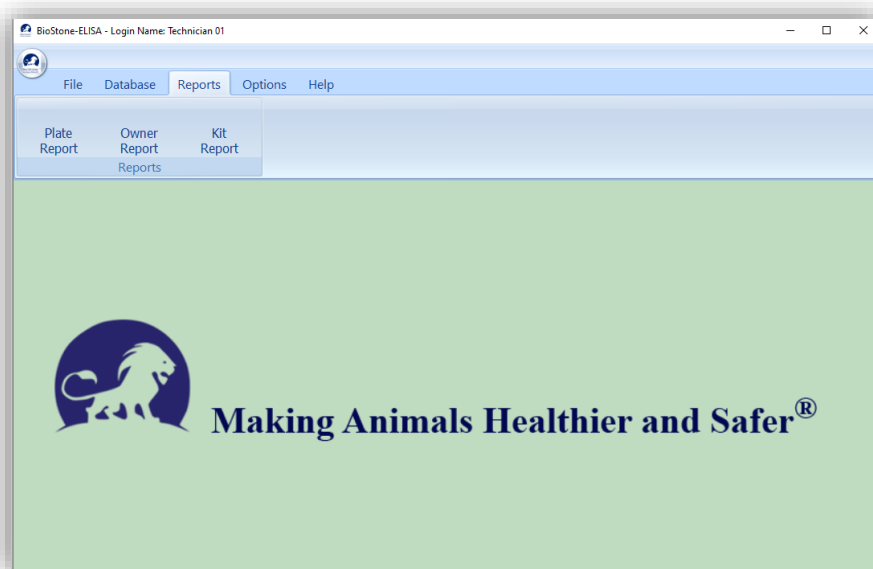
Report production is grouped under three main headings. In all report types, all readings made according to the entered date range are displayed, allowing the technician to make selections at each step.

Plate Report : Generates a special or detailed report for a plate. It does not distinguish between cases or customers.

Owner Report : Only the selected customer in the selected plate for reporting receives specific reporting. Useful when there is more than one customer sample on a plate. Recommended to avoid possible confusion. By selecting one or more customers, collective reports can be obtained in summary or in detail.

Kit Report: It is a reporting form developed for the laboratory that performs the test. It can report all the readings made for the selected kits.

New options can be added to the Biostone ELISA report section based on customer feedback. You can have the updates with the 'Program Update' option.



4. Generating Reports

4.1 Plate Report

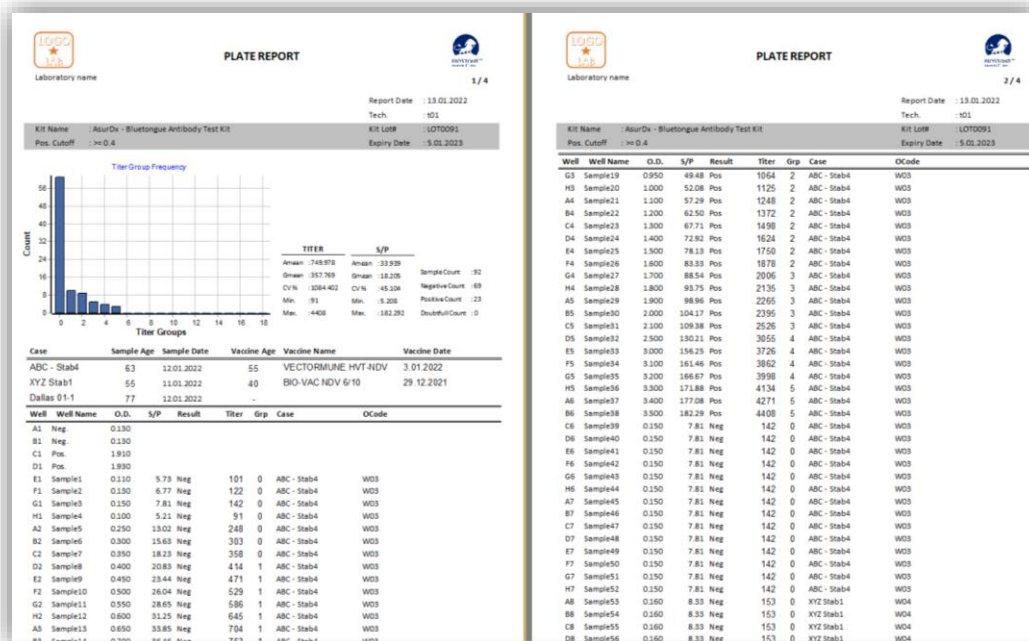
Generates a special or detailed report for a plate. It does not distinguish between cases or customers.

Existing reports are displayed by selecting "Starting Date" and "End Date" and "Kit No".

If the "List" button is pressed without making any selection, the reports of the day are listed.

Press the 'Print' button for the preview report.

You can save the report as a PDF or send it directly to the printer.



'Plate Report' outputs the entire plate report regardless of customer(owner).

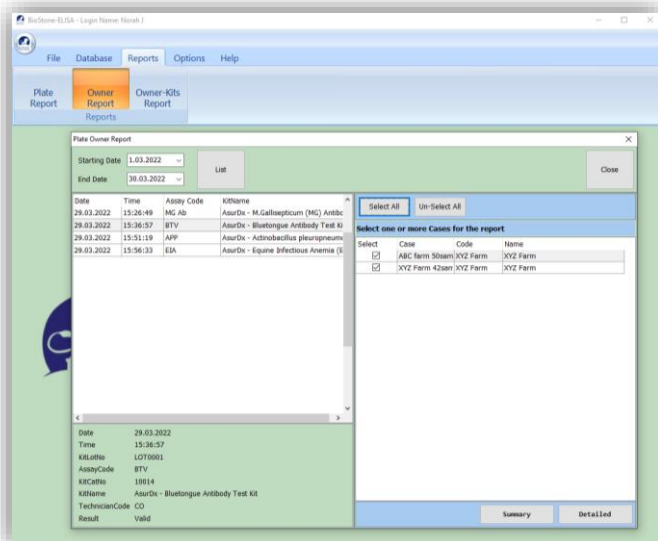
Use other reports for customer-specific evaluation.

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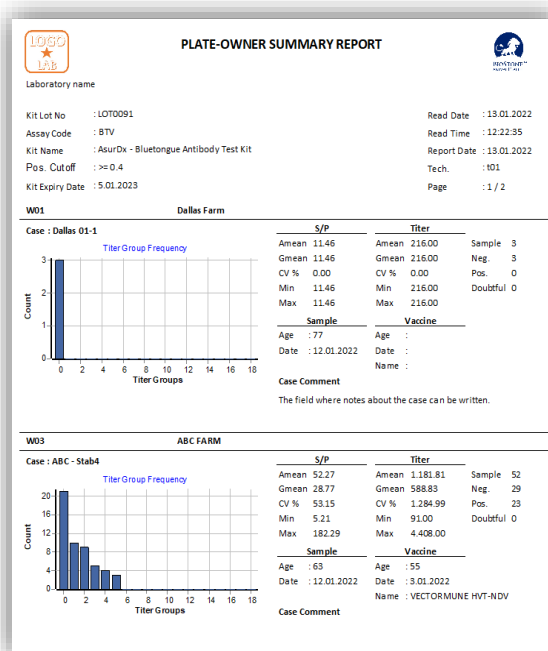
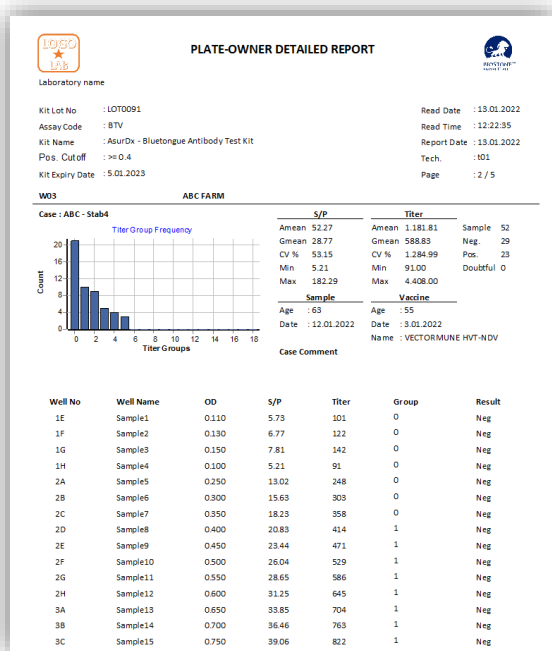
4. Generating Reports

4.2 Owner Report

Only the selected customer in the selected plate for reporting receives specific reporting. Useful when there is more than one customer sample on a plate. Recommended to avoid possible confusion. By selecting one or more customers, collective reports can be obtained in summary or in detail.



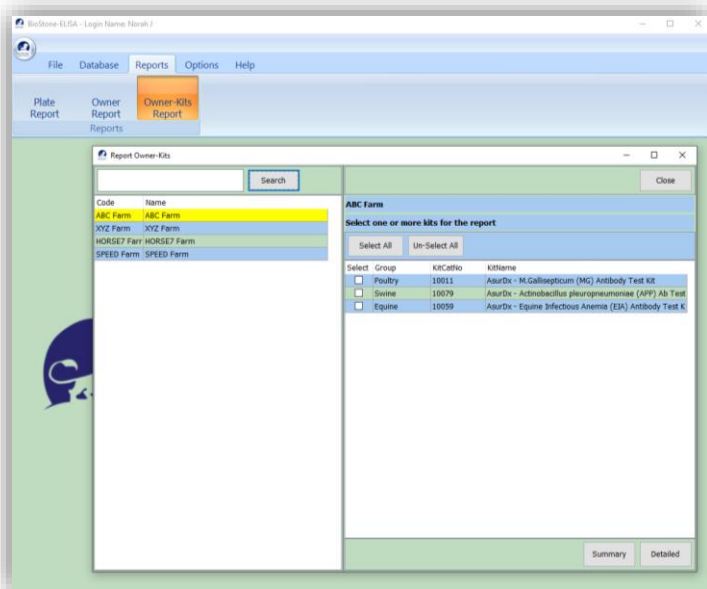
Available reports are displayed by selecting "Start Date" and "End Date". If the "List" button is pressed without making any selection, the reports of the day are listed. A report is selected from the list on the left. Customers included in the selected report are displayed on the right screen. By selecting one or more customers, the report of that customer is selected. Press the "Detailed" or "Summary" button for the report. You can save the report as a PDF or send it directly to the printer.


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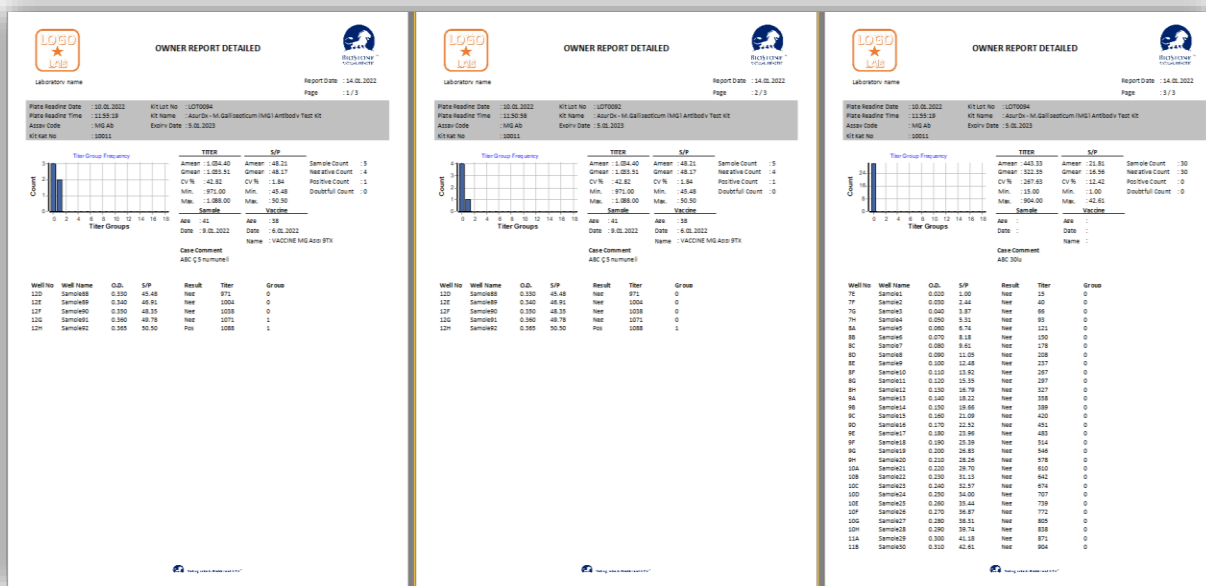
4. Generating Reports

4.3 Kit Report

It is a reporting form developed for the laboratory that performs the test. It can report all the readings made for the selected kits.



As a first step, one or more customers (Owners) are selected. If there are registered tests belonging to the selected customer, the results are listed in the right section. A report can be obtained by selecting one or more of the listed results. The received report includes all reports of the selected customer and kit (If you want to report for a single scan, use the 'owner' reporting). Press the "Detail" or "Summary" button for the report. You can save the report as a PDF or send it directly to the printer.



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5. Update

5.1 Update

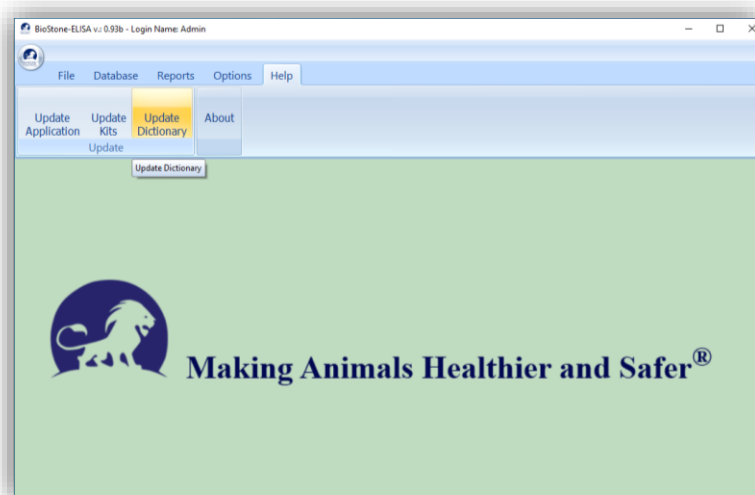
Updates collected in three main groups are made only with admin user.

Update Application: The latest changes in the program (such as menus, calculations, reader presentation) are accessed.

Update Kit: The final state of the values known as kit constants (Cutoff, formula, titer groups etc.) is reached. If the values in the manual of the kit you will use are different from the values in the program, you need to update.

Update Dictionary: The program supports five different languages. It can be used to access updates to the language library.

The Biostone ELISA program continues to work without an internet connection. However, it requires an internet connection for the latest status updates. Updates can take a minute or two at an average connection speed.



6. Backup & Restore

6.1 Backup

Program and data are backed up as a whole. It provides full recovery in disaster situations such as PC crash, program deletion... etc. No automatic backups are made. The user can take backups at any time.

The backup file can be made to a folder of the user's choice. The file name is created automatically.

For example: BioStoneElisa_FB_20221123_110247.db3

As can be seen in the file name, the backup file name is formed according to the date and time of the backup.

This file can be stored in your backup unit or in different folders.

Backup with Admin user

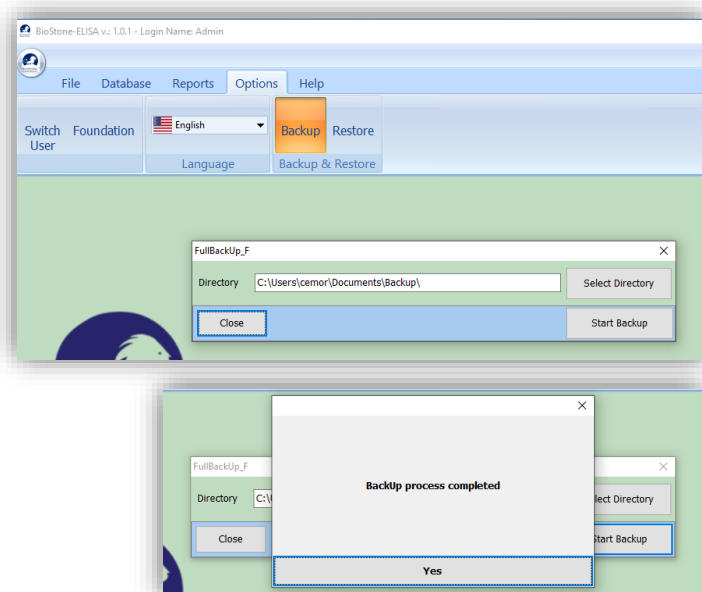
→ Options

→ Backup

→ Select Directory

Choose a folder or create a new one

→ Start Backup



6.2 Restore

For the restore, please follow below steps :

Step.1 A new BiostoneELISA program is installed.

Step.2 Restore is done without a new scan.

(The readings between the new program installation and the restore operations will disappear.)

Attention! Do not restore on a program with data. The restore operation deletes the old data files and loads the backup file. Only the Admin user is authorized to do this.

Restore with Admin user

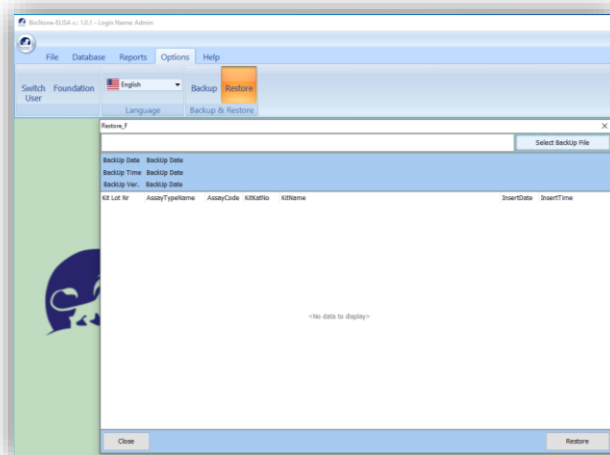
→ Options

→ Restore

→ Select Backup File

Select the backup file

→ Restore



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