Web Calculator Manual

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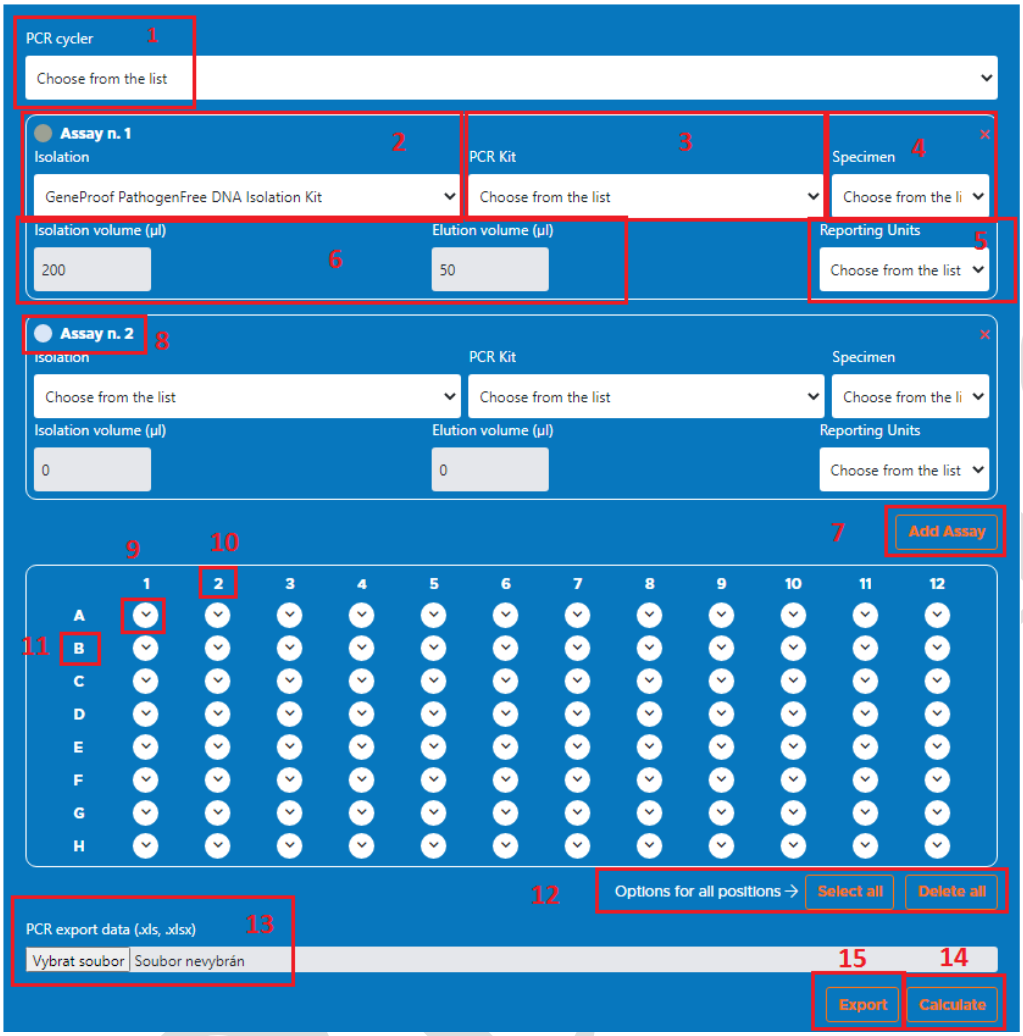
Public

1. WEB CALCULATOR FUNCTIONS



1. Choose a PCR cycler or Manual Data Import
2. Choose an isolation
3. Choose a PCR kit
4. Choose a specimen
5. Choose reporting units
6. Edit isolation and elution volumes if necessary
7. Add another assay when combining multiple parameters
8. Set up the newly added assay according to points 1. – 6.
9. Assign an assay to a specific position
10. Assign an assay to a column
11. Assign an assay to a row
12. Assign an assay to the whole PCR plate or delete the current setup
13. Upload an excel report from the cycler
14. Calculate the pathogen concentration in primary sample
15. Export the calculated data to a new excel

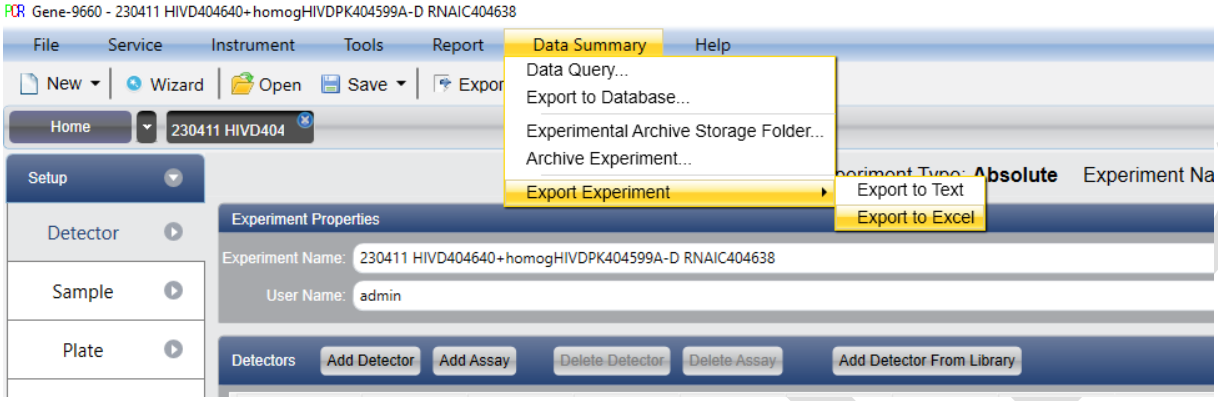
1. Web Calculator variant for **Mic qPCR Cycler**
2. Assign assay to 8 positions
3. Assign assay to a specific position
4. Upload an excel report for each fluorescent channel

1. Web Calculator variant for **Rotor-Gene 3000/6000/Q**
2. Choose a Rotor type
3. Assign assay to 6 positions
4. Assign assay to a specific position
5. Upload an excel report for each fluorescent channel

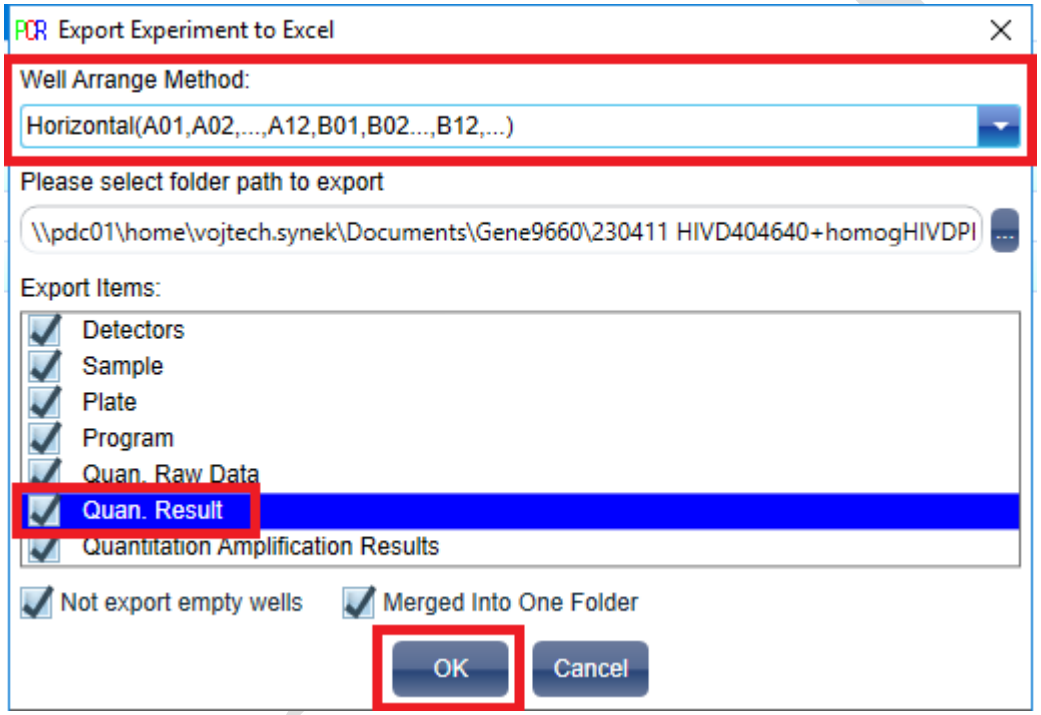
2. EXPORT CREATION

2.1. croBEE Real-Time PCR System / LineGene 9600 Plus / BioQuant-96 Real-Time PCR System

1. Click **Data Summary** → **Export Experiment** → **Export to Excel**

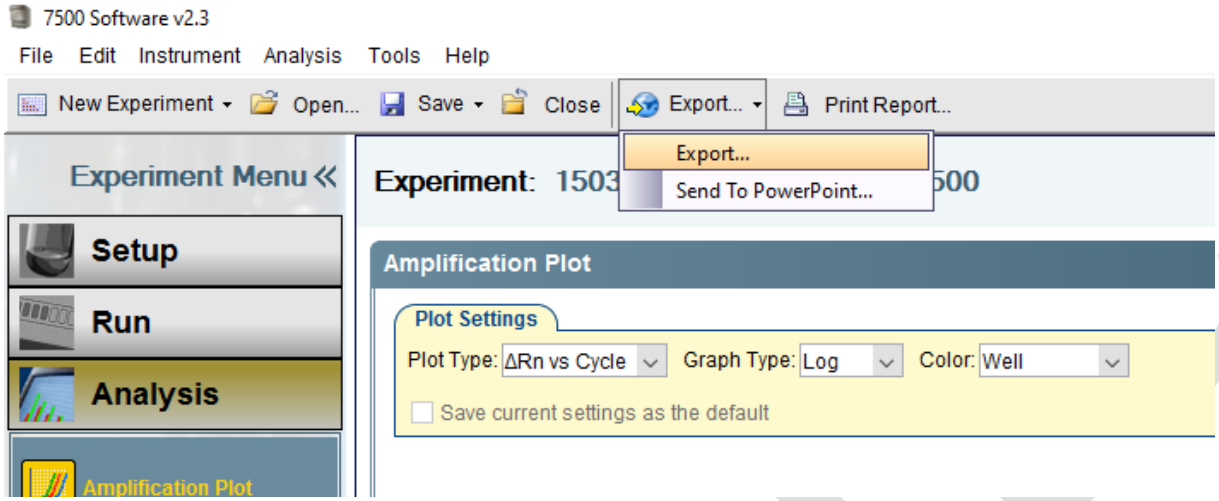


2. **Well Arrange Method:** must be **Horizontal**… and **Quan. Result** must be checked. Click **OK** to create the export.

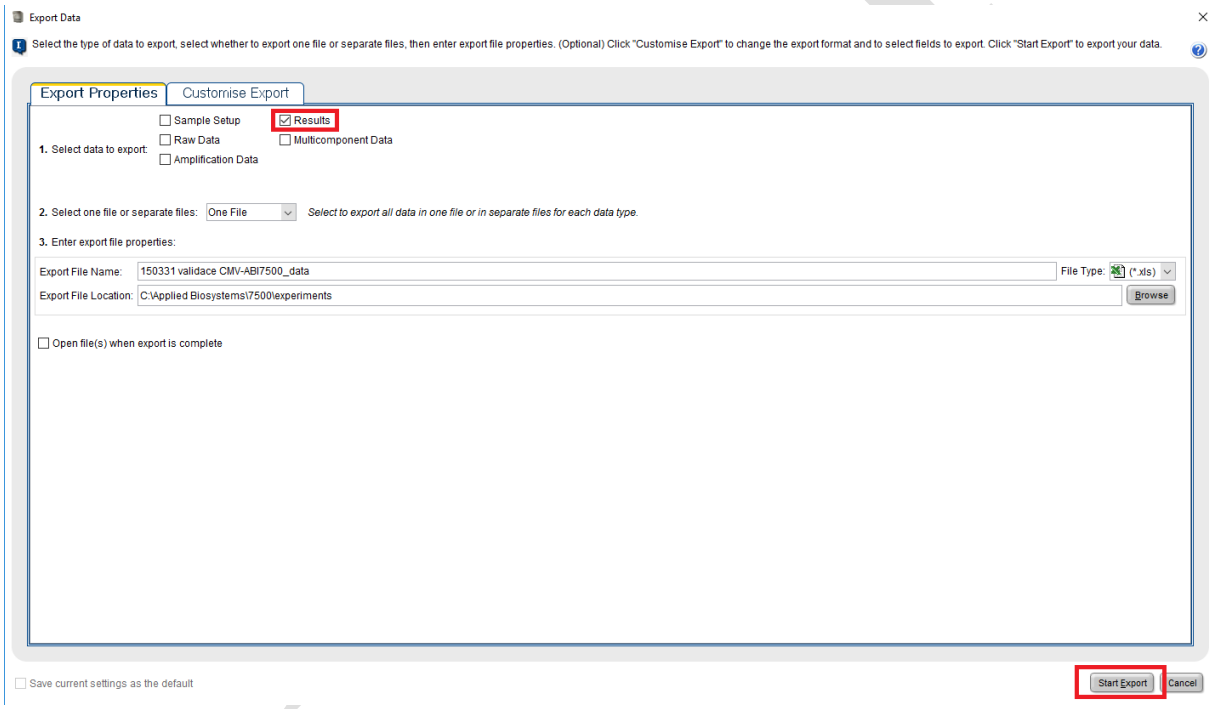


2.2. Applied Biosystems 7300 / 7500 Real-Time PCR System

1. Click **Export…** → **Export….**



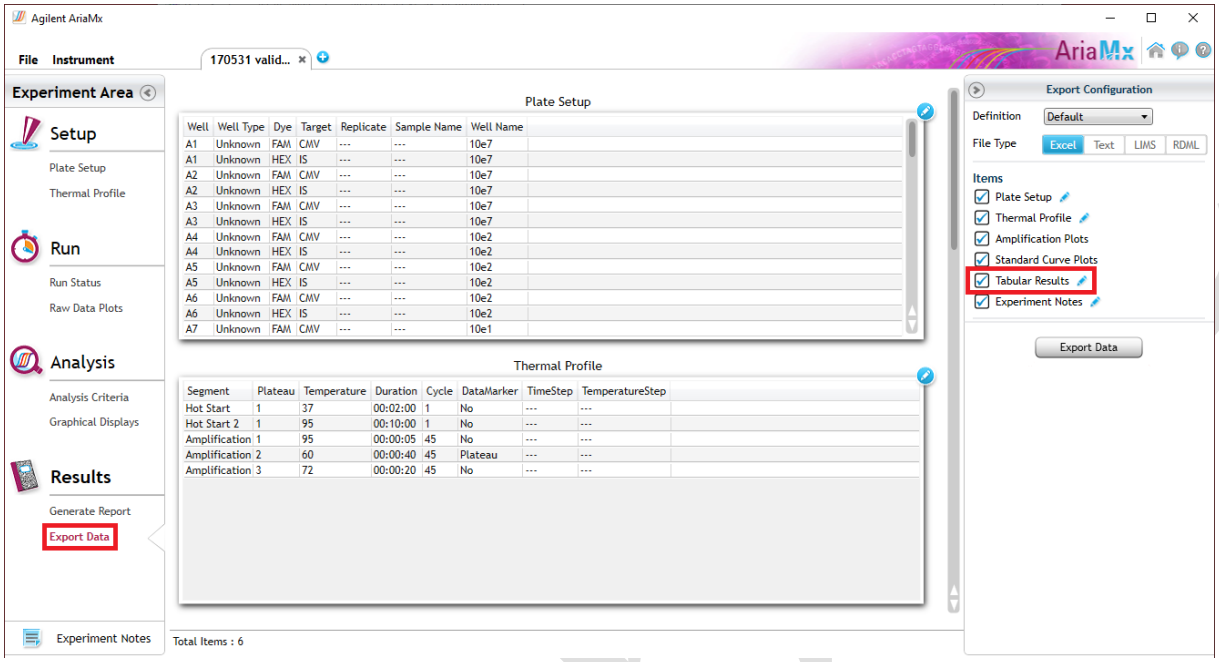
2. **Results** must be checked. Click **Start Export** to create the export.



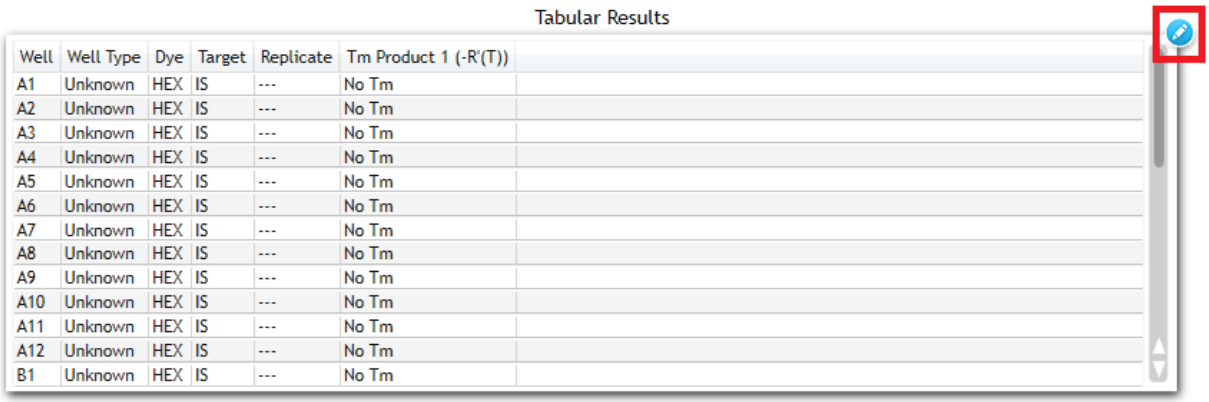
2.3. AriaMx Real-Time PCR System / AriaDx Real-Time PCR System

1. Click **Export Data** in **Results**.

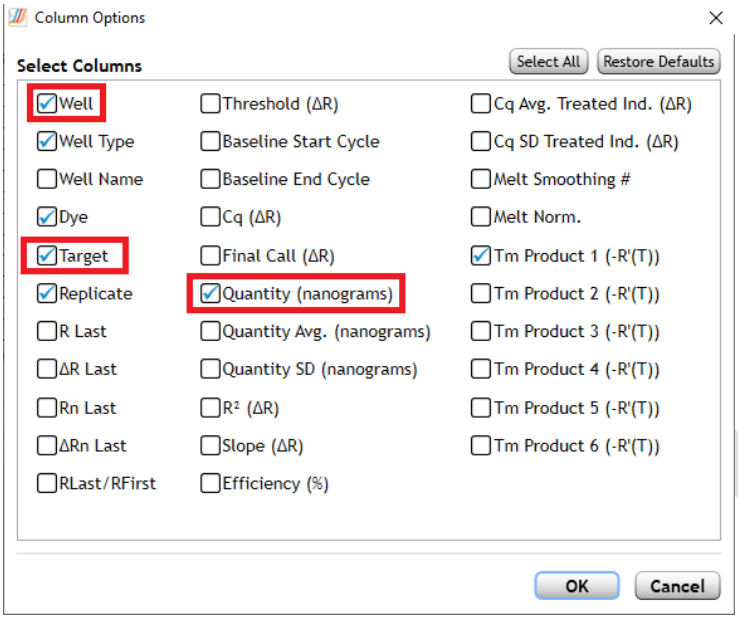
2. In **Export Configuration** the option **Tabular Results** must be checked.



3. Click the blue pen icon to edit Columns for **Tabular Results.**

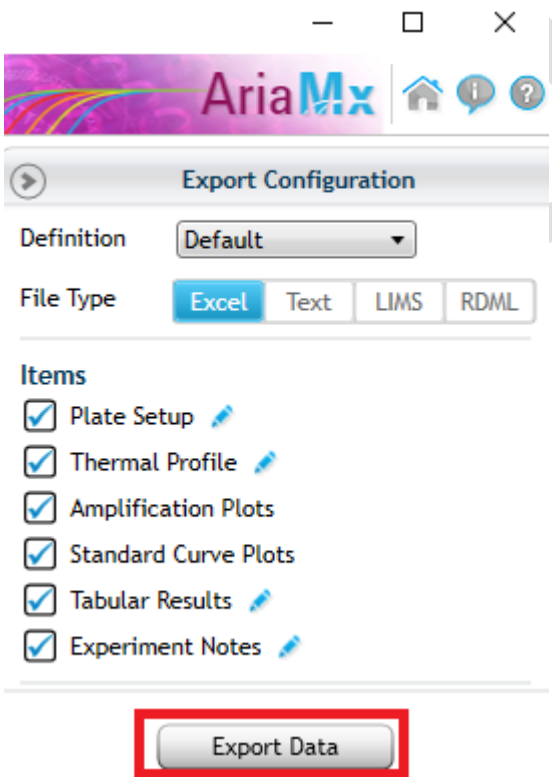


4. In **Column Options** for **Tabular Results** options **Well, Target** and **Quantity (nanograms)*** must be checked. Click **OK** to confirm.



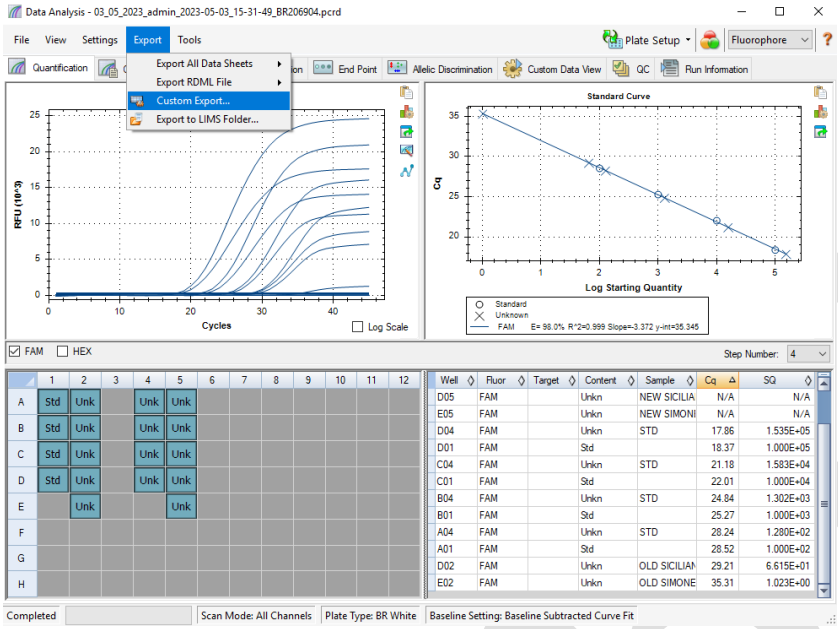
* regardless of calibrator units needs to be set Units (for Plate) to nanograms

5. Click on the Click **Export Data** to create the export.

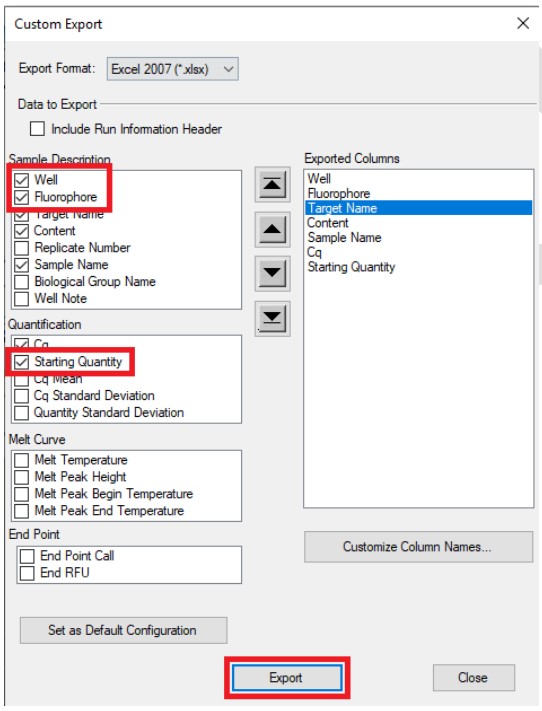


2.4. CFX96™ / Dx Real-Time PCR Detection System / CFX Opus 96 Real-Time PCR System

1. Click **Export** → **Custom Export…**.



2. Options **Well, Fluorophore** and **Starting Quantity** must be checked. Export Format **Excel 2003 (*.xls)** is recommended.



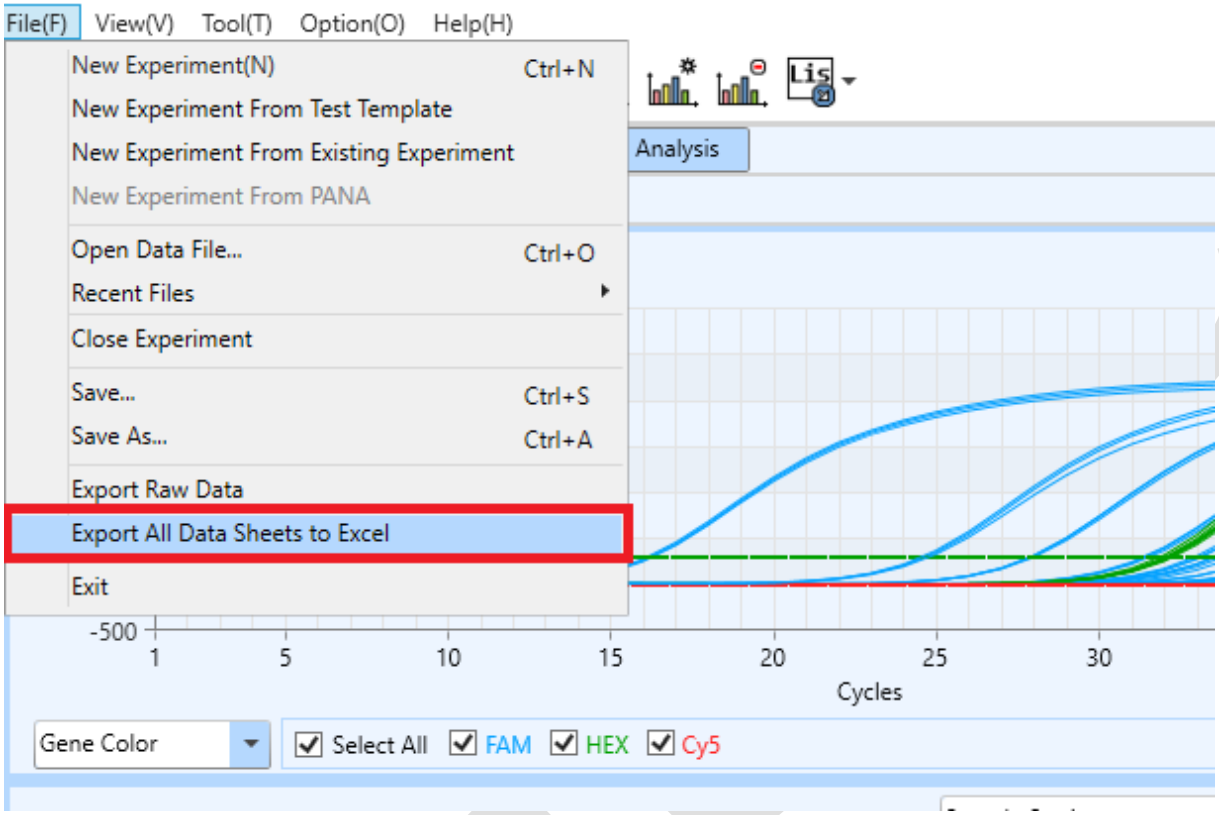
3. <u>Do not change</u> the names of **Exported columns** in **Customize Column Names…**, use the default column names.

4. Leave <u>unchecked</u> **Include Run Information Header**. Click **Export** to create the export.

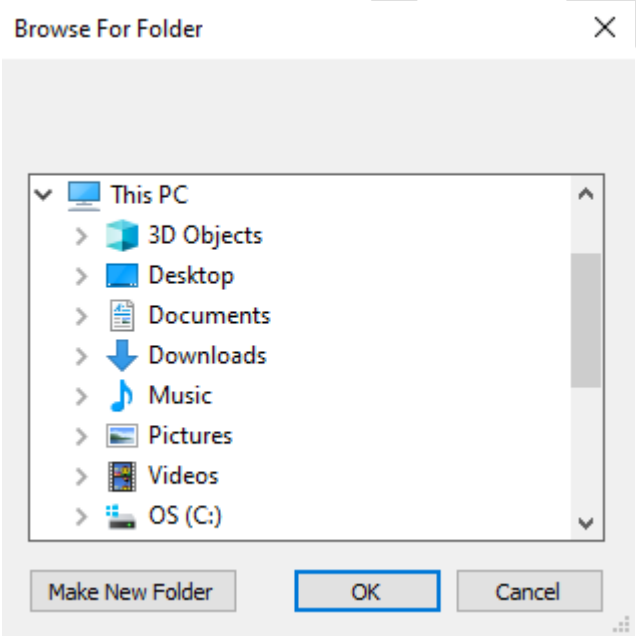
5. If the export does not work in the Web Calculator, open it in Excel and save it again.

2.5. Gentier 96E / 96R Real-Time PCR System / AMPLilab Real-Time PCR System

1. Click File(F) → Export All Data Sheets to Excel

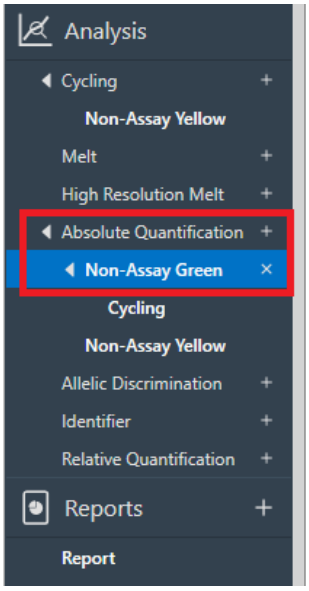


2. Create export by clicking **OK**.

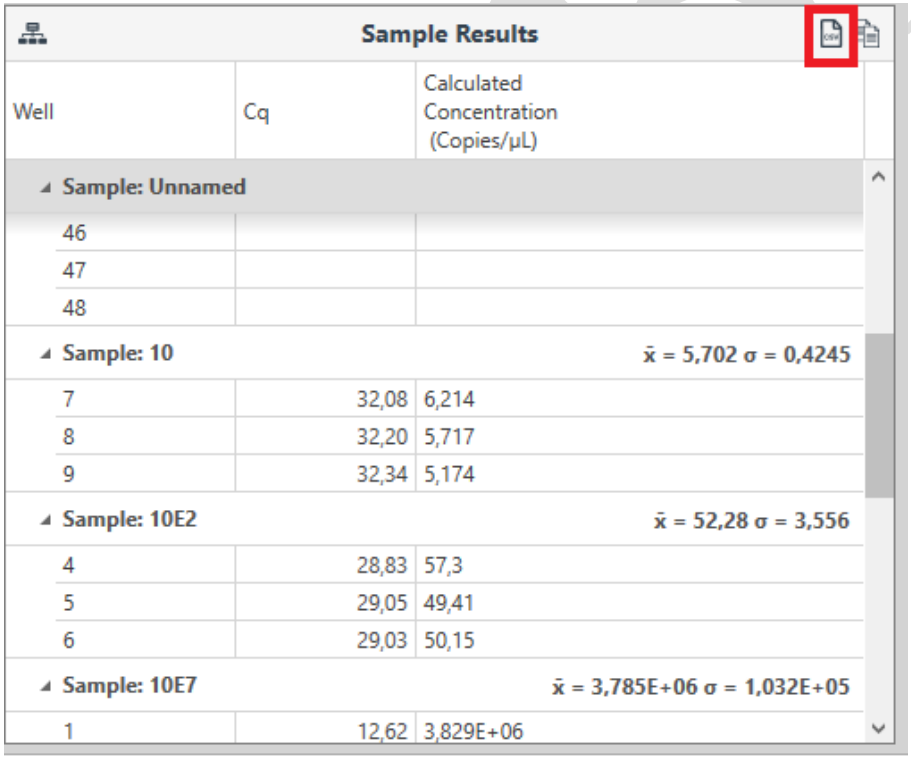


2.6. Mic qPCR Cycler

1. Perform **Absolute Quantification** in **Analysis.**



2. In **Sample Results** click on the top right icon to save the results as the **CSV** file.



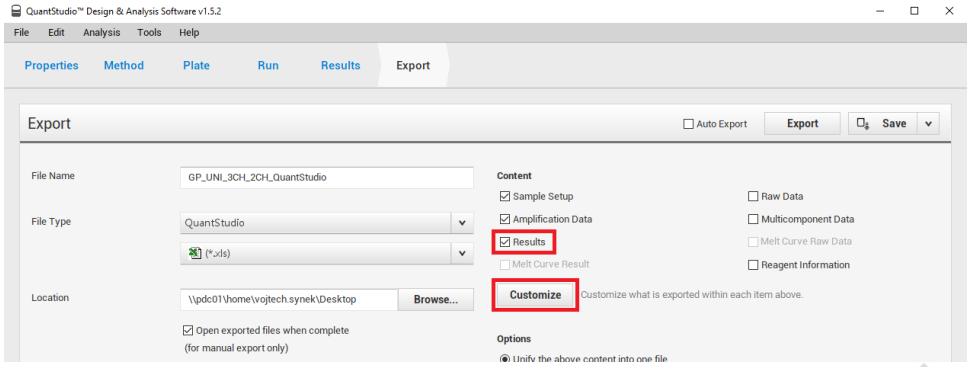
Sample Results

Well	Cq	Calculated Concentration (Copies/µL)
Sample: Unnamed		
46		
47		
48		
Sample: 10		$\bar{x}$ = 5,702 σ = 0,4245
7	32,08	6,214
8	32,20	5,717
9	32,34	5,174
Sample: 10E2		$\bar{x}$ = 52,28 σ = 3,556
4	28,83	57,3
5	29,05	49,41
6	29,03	50,15
Sample: 10E7		$\bar{x}$ = 3,785E+06 σ = 1,032E+05
1	12,62	3,829E+06

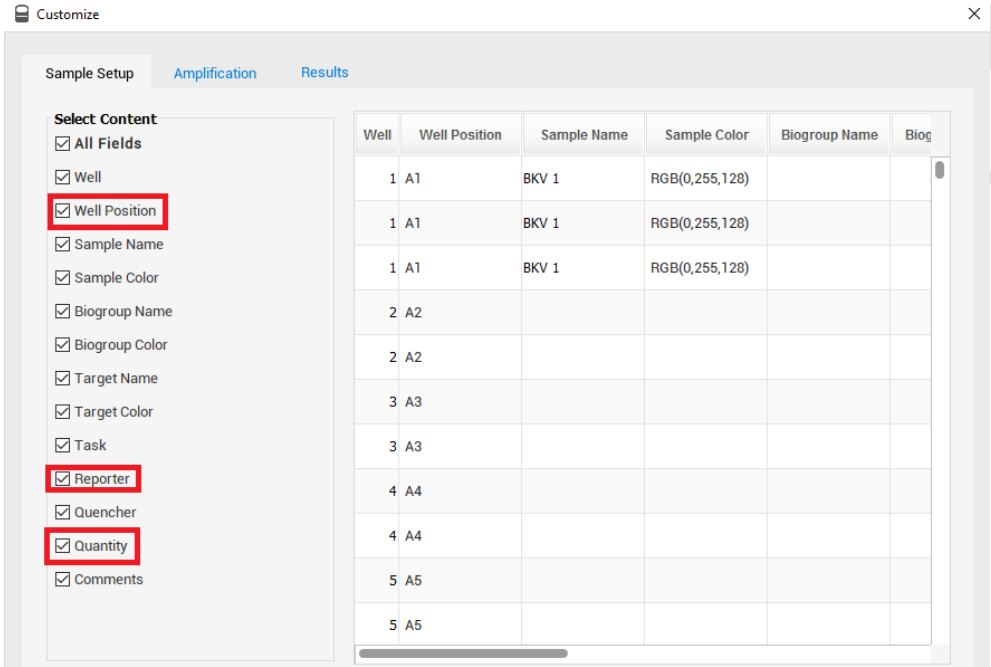
3. **Repeat** for **other** fluorescent channels.

2.7. QuantStudio™ 3 / 5 Real-Time PCR System

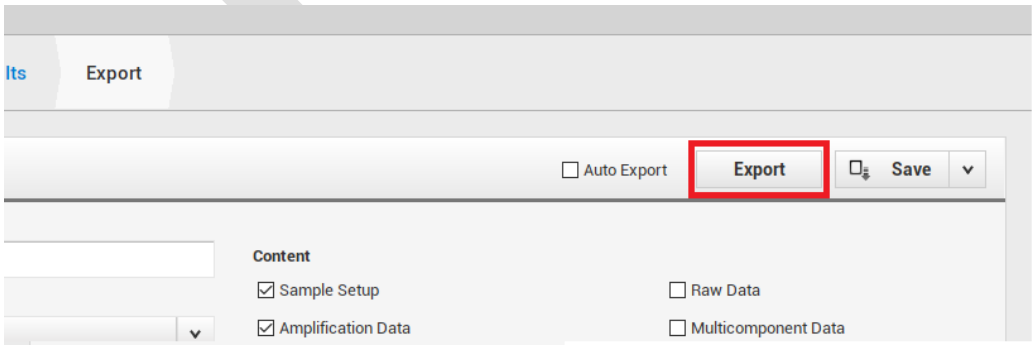
1. Click **Export. Results** must be checked. Click **Customize** to open Customize window.



2. **Well Position**, **Reporter** and **Quantity** must be checked.

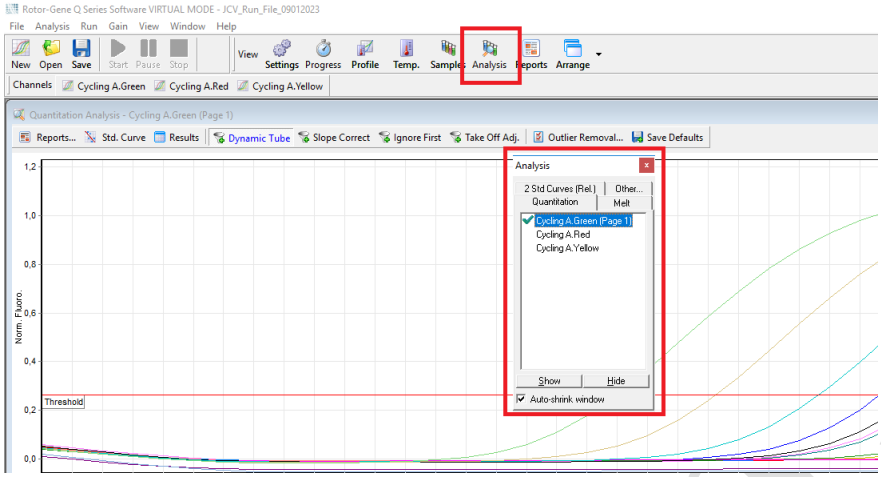


3. Click **Export** to create the export.

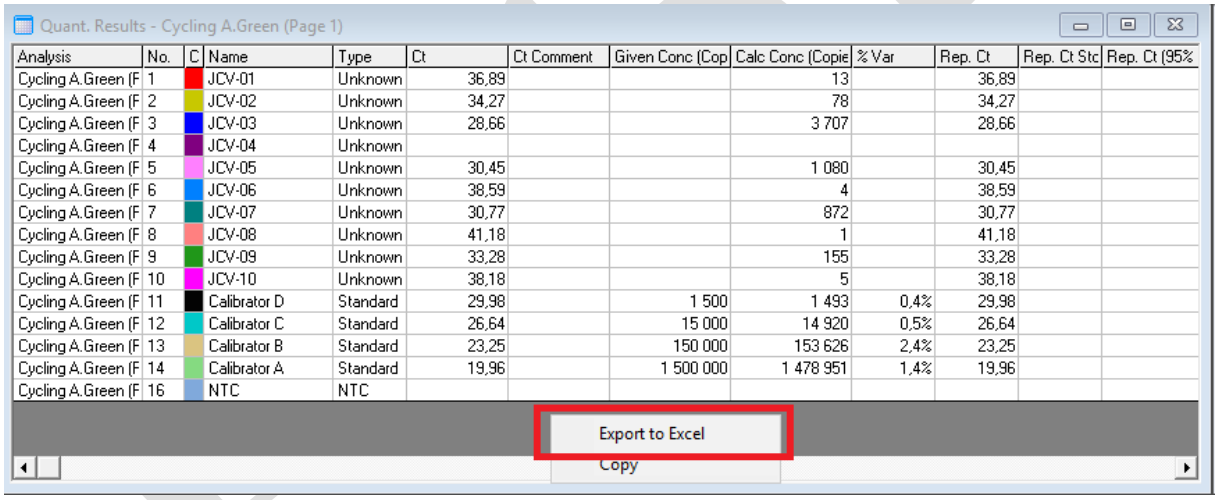


2.8. Rotor-Gene 3000/6000/Q

1. Perform **Quantitation analysis**.



2. In **Quant. Results**… right-click the table and choose **Export to Excel**.

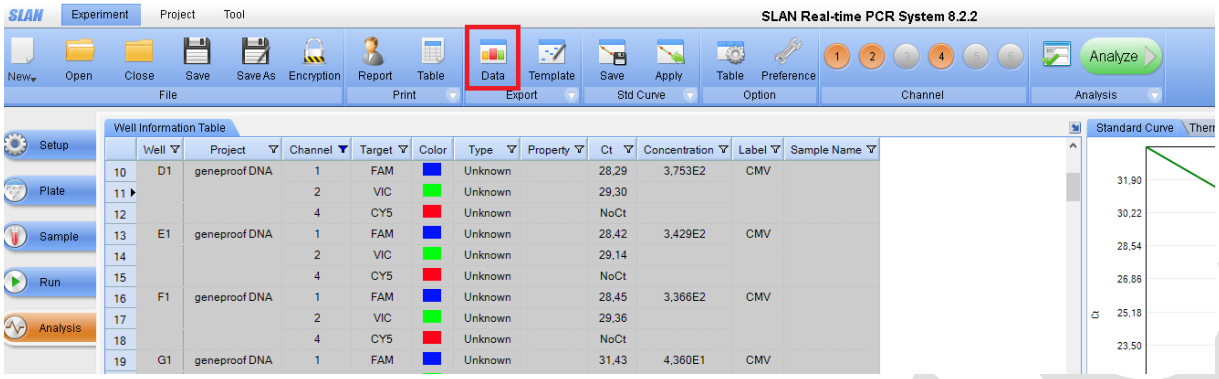


Analysis	No.	C	Name	Type	Ct	Ct Comment	Given Conc (Cop	Calc Conc (Copie	% Var	Rep. Ct	Rep. Ct Stc	Rep. Ct (95%
Cycling A.Green (F	1		JCV-01	Unknown	36,89			13		36,89		
Cycling A.Green (F	2		JCV-02	Unknown	34,27			78		34,27		
Cycling A.Green (F	3		JCV-03	Unknown	28,66			3 707		28,66		
Cycling A.Green (F	4		JCV-04	Unknown								
Cycling A.Green (F	5		JCV-05	Unknown	30,45			1 080		30,45		
Cycling A.Green (F	6		JCV-06	Unknown	38,59			4		38,59		
Cycling A.Green (F	7		JCV-07	Unknown	30,77			872		30,77		
Cycling A.Green (F	8		JCV-08	Unknown	41,18			1		41,18		
Cycling A.Green (F	9		JCV-09	Unknown	33,28			155		33,28		
Cycling A.Green (F	10		JCV-10	Unknown	38,18			5		38,18		
Cycling A.Green (F	11		Calibrator D	Standard	29,98		1 500	1 493	0,4%	29,98		
Cycling A.Green (F	12		Calibrator C	Standard	26,64		15 000	14 920	0,5%	26,64		
Cycling A.Green (F	13		Calibrator B	Standard	23,25		150 000	153 626	2,4%	23,25		
Cycling A.Green (F	14		Calibrator A	Standard	19,96		1 500 000	1 478 951	1,4%	19,96		
Cycling A.Green (F	16		NTC	NTC								

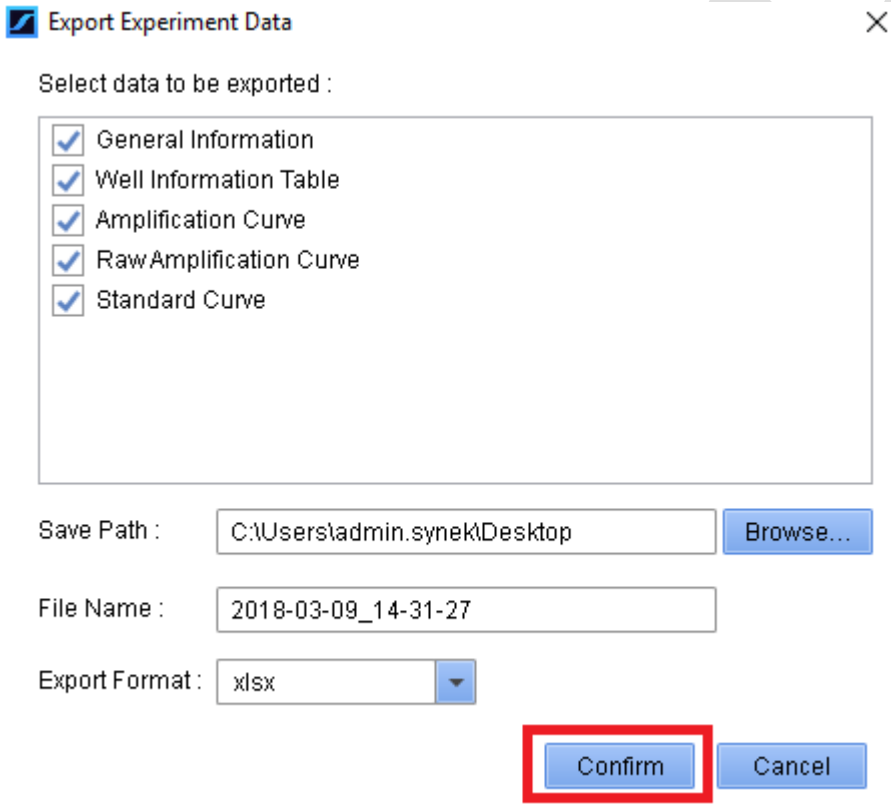
3. **Repeat** for **other** fluorescent channels.

2.9. SLAN® Real-Time PCR System

1. Click **Data** in **Export.**

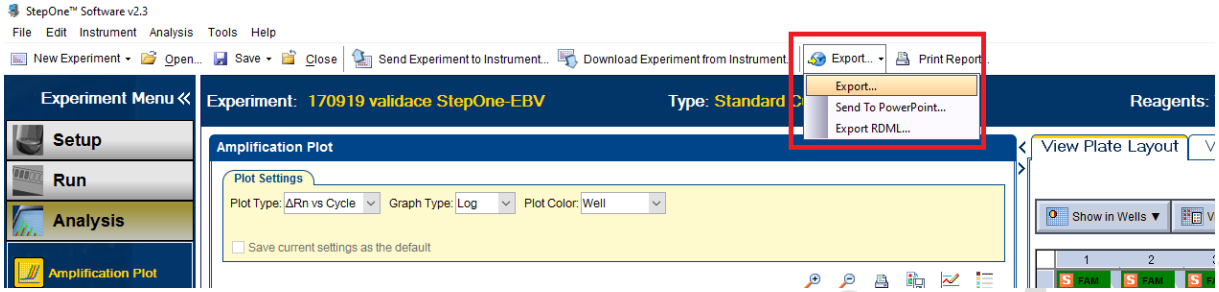


2. In Export Experiment Data click Confirm.

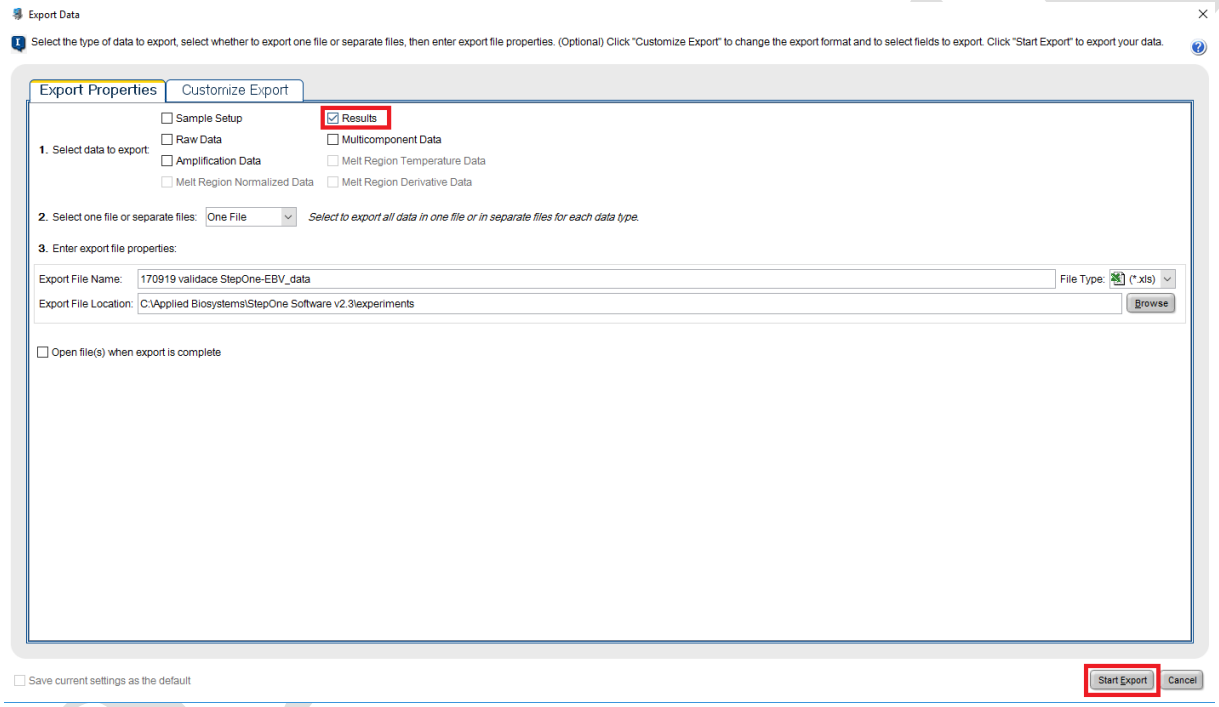


2.10. StepOne™ / StepOne Plus™ Real-Time PCR System

1. Click **Export… → Start Export**….



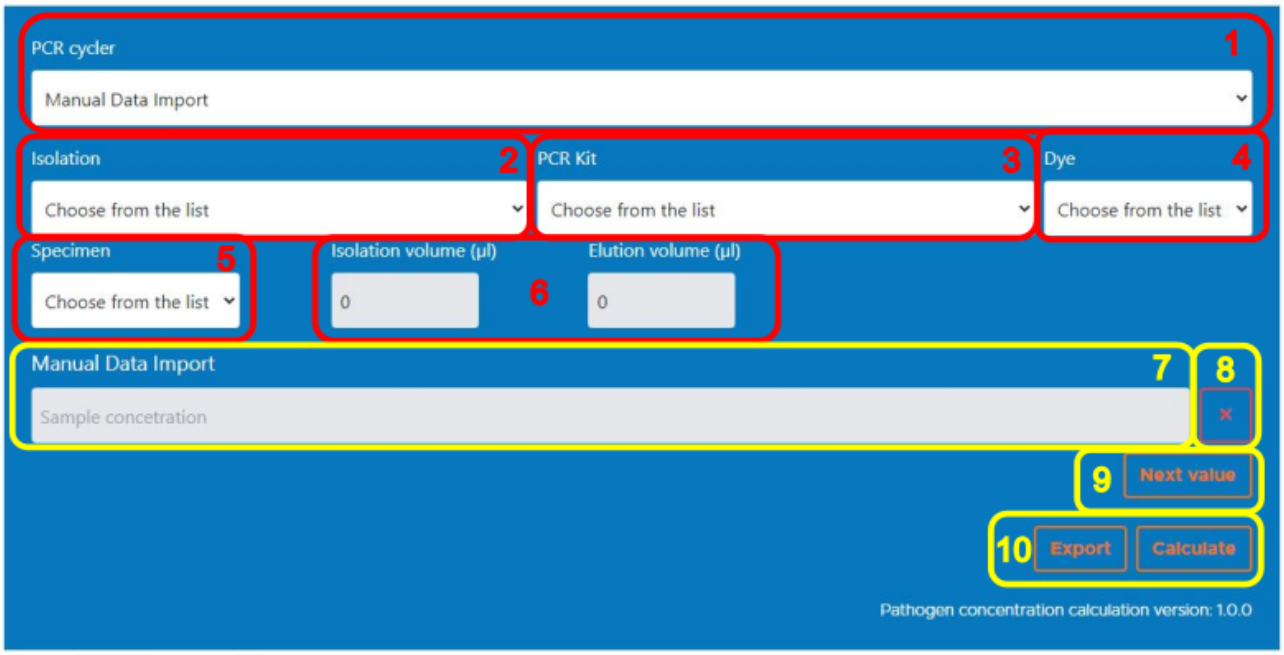
2. Results must be checked. Click Start Export to create the export.



3. MANUAL DATA IMPORT

Additional tool for manual data import and viral load calculation is included as „**Manual Data Import**“ option in the PCR cycler selection.

1. Select „**Manual Data Import**“ option in PCR cycler from the list
2. Selection of the **isolation** used for the sample types tested
3. Selection of used **PCR kit**
4. Selection of **Dye** specific for the pathogen tested
5. Selection of the **specimen type**
6. For any extraction, adjustment of both the **isolation** and **elution** volume is possible
7. Enter the **sample concentration** obtained from PCR cycler
8. Serves to **delete** incorrect or unwanted sample concentration (delete the entire box)
9. Option to **add** more samples for calculation
10. Option to **Export** the converted results to a document or **Calculate** to display them in the web interface



1. Fill in all necessary data to obtain valid results.

2. As sample concentration you can use following formats of numbers:

e.g. *150 = 1.5e2 = 1.5E2 = 1.5e+2 = 1.5E+2*

0.15 = 0,15 = 1.5e-1 = 1.5E-1

- For scientific format number, use **dot** as **decimal point** instead of comma !