IVD CE

OctoClario Software

User Guide

Version 1.1.1

OCTOBIO

OctoClario

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Introduction

OctoClario is a specialized software application designed to perform automated melt curve analysis from data generated using The Octo Health Real Time PCR Cardiovascular Disease (CVD) and Familial Mediterranean Fever (FMF) Diagnostic Kits. It provides a streamlined and accurate workflow for interpreting fluorescence based melting data, allowing users to obtain clear genotyping and mutation detection results with minimum manual intervention.

Built for precision and ease of use, OctoClario uses exported raw data files from supported real-time PCR instruments, processes and normalizes melting curves, and identifies parameter specific melting peaks using optimized algorithms tailored for The Octo Health Diagnostic Kits. The software integrates all steps of analysis – data extraction, curve visualization, quality control and genotype reporting – into a single unified interface. OctoClario currently supports data files generated by Bio-Rad CFX Maestro (ver. 2.3 or higher) and Qiagen Rotor-Gene (ver. 2.3.1 or higher) software.

Installation

System Requirements

Before installing OctoClario, ensure that your system meets the following minimum requirements:

Operating System: Windows 10 or Later (64-bit)

Memory: 8GB RAM (16 GB RAM Recommended)

Storage: 1 GB of Free Disk Space

Display: 1280 x 720 Resolution or Higher

Note: OctoClario is suited with an updater, an internet connection is required for software version updates.

Installation Steps

1. Download the installer

   Obtain the latest version of OctoClario from the official software portal or the provided distribution link.

2. Run the Setup File

   In Windows Explorer, navigate to and open *OctoClario_Setup_<ver>.exe* to start the installation wizard.

3. Follow the on-screen installation instructions.

   When prompted, select your preferred installation location or accept the default directory.

   After the installation is complete, the installer will create a desktop shortcut and Start Menu entry.

4. Launch OctoClario

   You can launch OctoClario from the desktop shortcut or from the Start Menu.

On the first run, software will perform a brief setup check and prepare the working environment.

Updating OctoClario

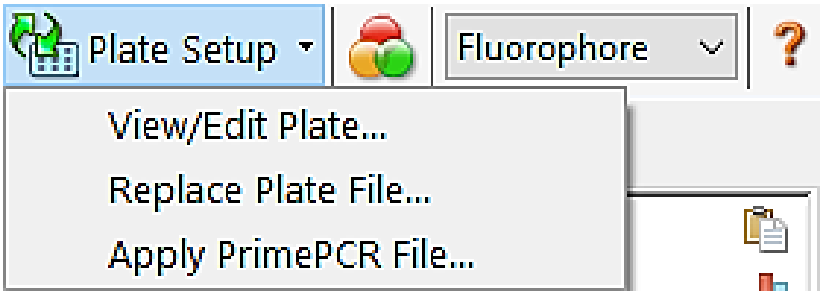
When a new version is available, the software will notify users automatically. Updates can be installed directly through the built-in updater or by downloading the latest installer and following the same installation steps.

Data Extraction From RT-PCR Instruments

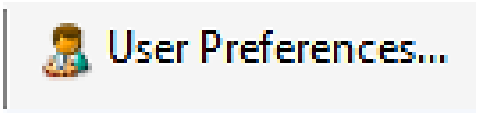
Before analysis in OctoClario, raw fluorescence data from real-time PCR instruments must be exported in a compatible format. OctoClario currently supports data files generated by Bio-Rad CFX Maestro (ver. 2.3 or higher) and Qiagen Rotor-Gene (ver. 2.3.1 or higher) software. The following steps describe how to format and export the required data files from each platform.

Data Extraction from Bio-Rad CFX Maestro

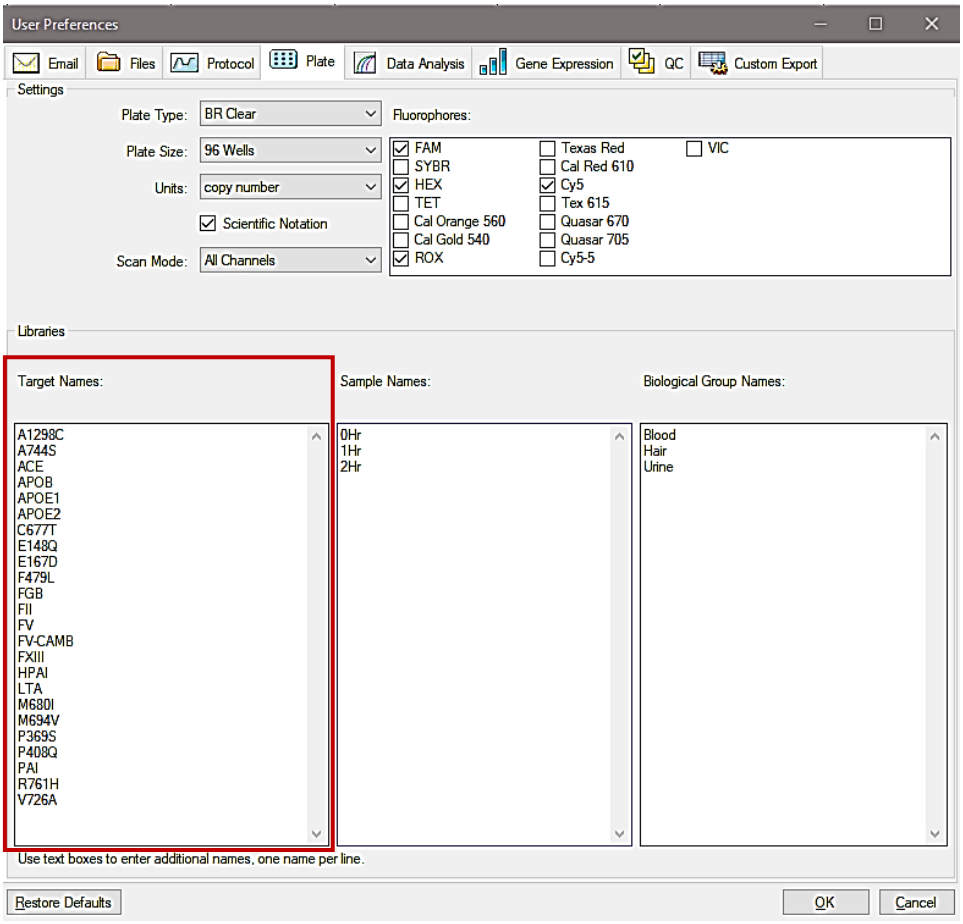
- Open RT-PCR run file (.pcrd) using CFX Maestro Software
- Under the Plate Setup button, click “View/Edit Plate” to open the “Plate Editor” window.



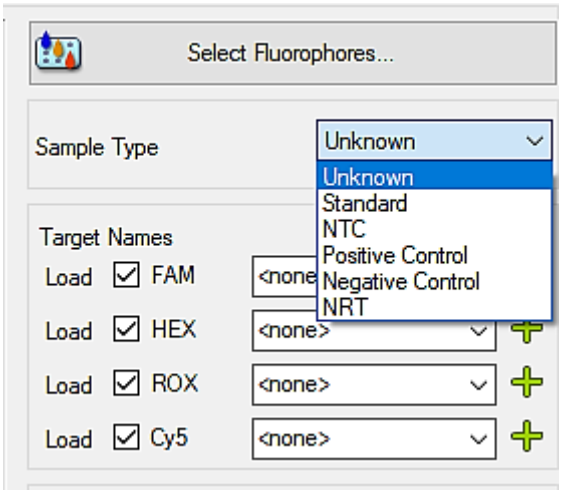
- In the “Plate Editor” window, click on the “User Preferences”.



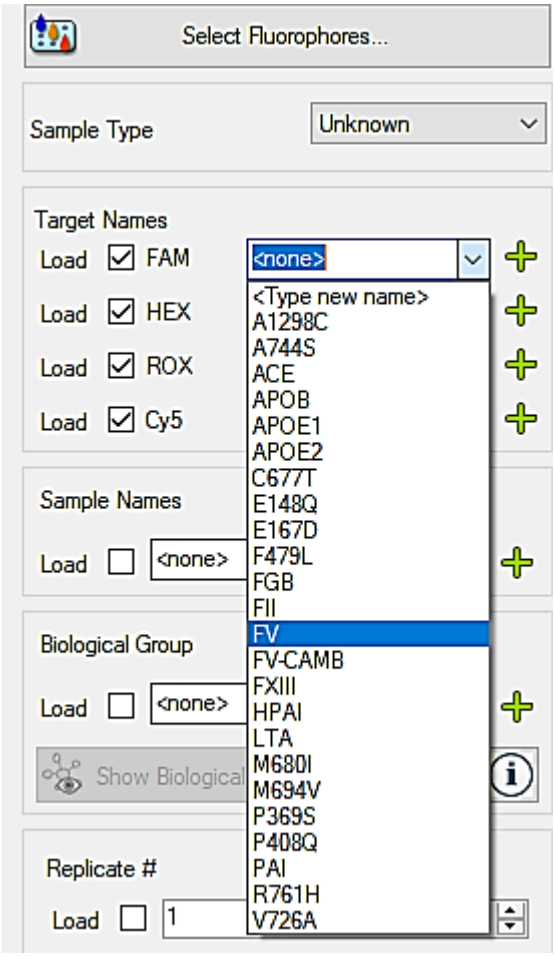
- In the “User Preferences” window, add target names as they were provided in the “Parameter Identifiers” chapter of this user guide, under the “Target Names” section of the “User Preferences” window.
    - *Note:* Depending on the configuration of the CFX Maestro software, this step may need to be performed only once per user.



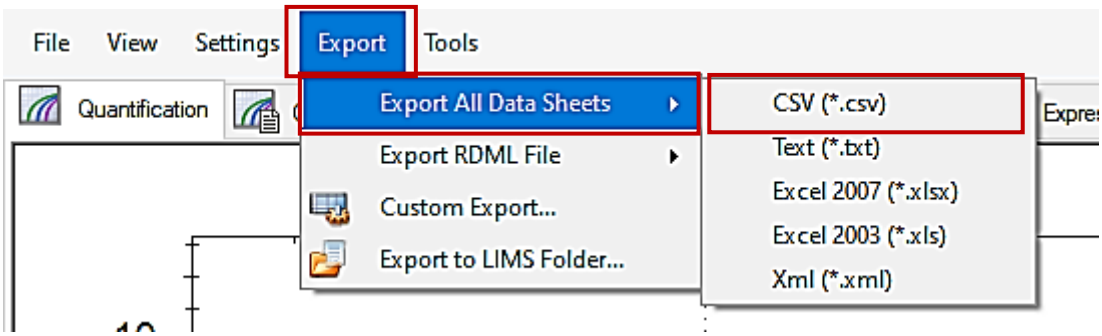
- Save your preferences and, close and reopen the “Plate Editor” to initialize the changes.
- In the “Plate Editor” window, Click on a well and input “Sample Type”.
    - Wells containing samples should be labelled “Unknown”,
    - Wells containing “Control Mix” should be labelled “Positive Control”,
    - “No Template Control” wells should be labelled “NTC”.



- In the “Target Names” section, select the appropriate parameters from the drop-down menu based on the dye and mix used in each well (see the kit user guide for parameter-dye correspondence).

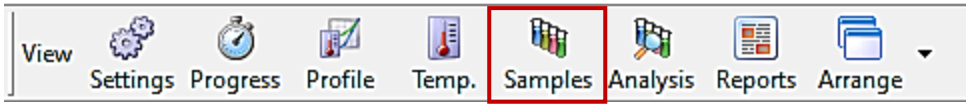


- Save and exit “Plate Editor”.
- Create a new folder to store exported data. Make sure the folder is empty. Do not store other files in the data folder.
- Under the “Export” button, select “Export All Data Sheets”, choose “CSV” and export the data files to the newly created empty folder.

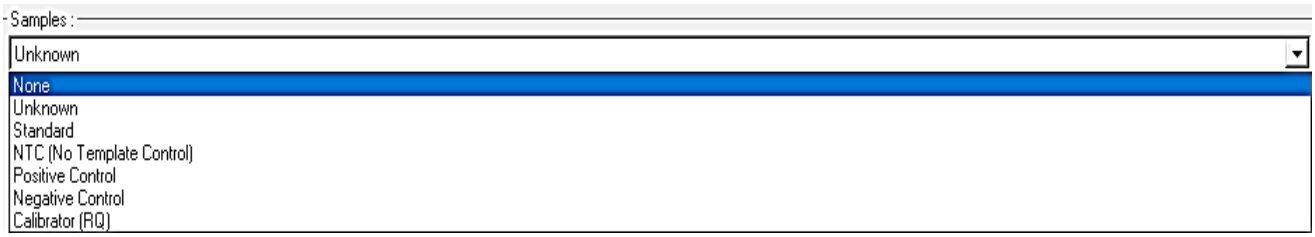


Data Extraction from Qiagen Rotor-Gene Software

- Open RT-PCR run file (.rex) using Rotor-Gene Software.
- Click on the “Samples” to open “Edit Samples” window.

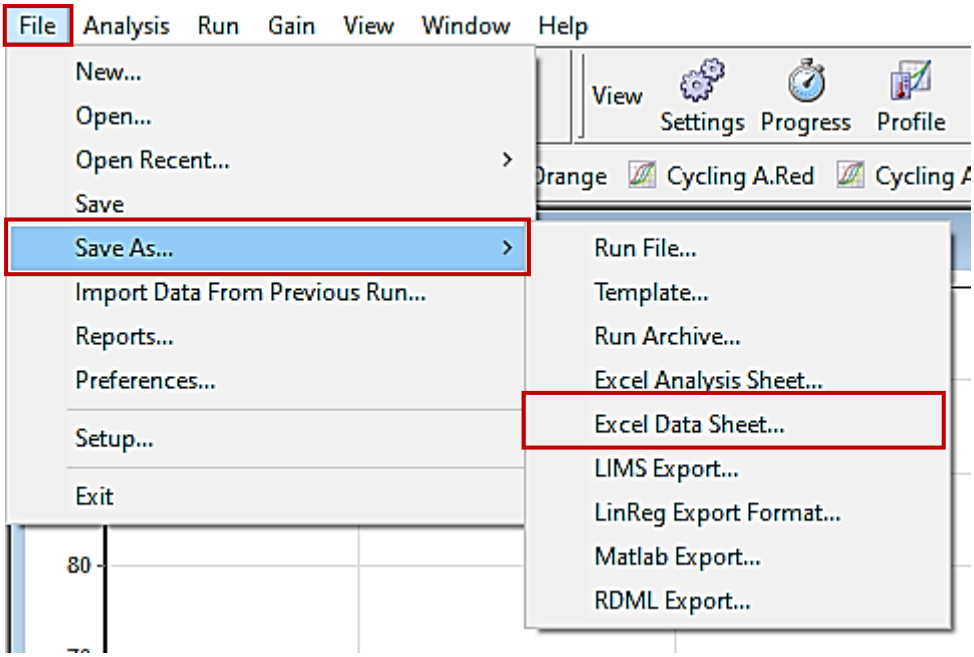


- In the “Edit Samples” window, click on the “Type” and input sample type.
  - Wells with samples should be labelled “Unknown”,
  - Wells containing “Control Mix” should be labelled “Positive Control”,
  - “No Template Control” wells should be labelled “NTC”.



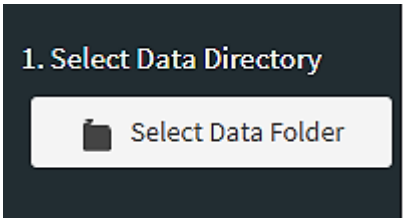
- Click on the groups and writedown which mix was used in the well,
  - For CVD kits, the kit identifier (CVD) and mix number (M1, M2, etc.) should be combined and written together (e.g. CVDM1, CVDM2, etc.).
  - For FMF kits, the kit identifier (FMF) and mix number (M1, M2, etc.) should be combined and written together (e.g. FMFM1, FMFM2, etc.).
- Wells to be analysed should be labelled “Yes”, in the “Selected” tab.
- Create a new folder to store exported data. Make sure the folder is empty. Do not store other files in the data folder.
- Click on the “Export to Excel” and export sample information of the run to the newly created folder.

- Save and close the “Edit Samples” window.
- In the main window, click “File”, then select “Save As” → “Excel Data Sheet”, and save the exported data in the newly created folder.

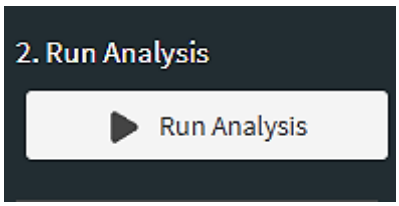


Data Analysis by OctoClario

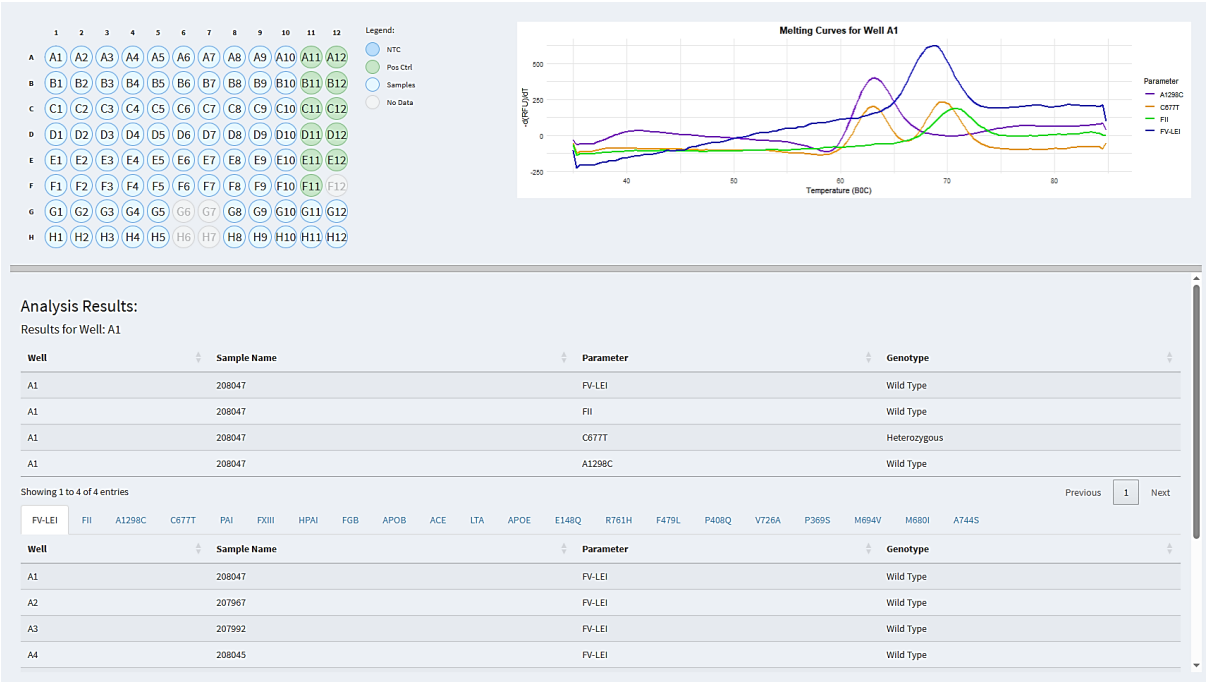
- Open OctoClario analysis software. Click “Select Data Folder”, select the folder that contains the data files and click “Select Folder”.



- After the directory is selected, click on “Run Analysis” to perform melt curve analysis.



- After the analysis is complete, OctoClario will automatically display results grouped by parameter.
    - Click a well to open that well’s detailed results.
    - View the associated melting curve graphs and metrics in the panel on the right.



- To save your analysis results, click the “Save As” button. OctoClario will create an Excel workbook that includes:
    - A summary sheet with all sample results and,
    - Separate sheets for parameter-specific results.
- Choose a destination folder and confirm to complete the export.

Parameter Identifiers

- Bio-Rad CFX Maestro Software – Target Name Assignment Guide for Real Time PCR CVD Diagnostic Kits.

MIX	GENE	RS#	Channel	Identifier
Mix 1	Factor V - Leiden	RS6025	FAM	FV
	Prothrombin	RS1799963	HEX	FII
	MTHFR (C677T)	RS1801133	ROX	C677T
	MTHFR (A1298C)	RS1801131	Cy5	A1298C
Mix 2	Factor XIII	RS5985	ROX	FXIII
	PAI	RS1799762	Cy5	PAI
Mix 3	B-Fibrinogen	RS1800790	ROX	FGB
	HPA1	RS5918	Cy5	HPAI
Mix 4	APOB	RS5742904	ROX	APOB
	Factor V - Cambridge	RS118203906	Cy5	FV-CAMB
Mix 5	LTA	RS1041981	ROX	LTA
	ACE	RS1799752	Cy5	ACE
Mix 6	APOE	RS429358	ROX	APOE1
	APOE	RS7412	Cy5	APOE2
Mix 7	H1299R	RS18000595	ROX	H1299R

- Bio-Rad CFX Maestro Software – Target Name Assignment Guide for Real Time PCR FMF Diagnostic Kits.

MIX	Parameter	RS#	Channel	Identifier
Mix 1	E148Q	RS3743930	ROX	E148Q
	E148V	RS104895076		
	R761H	RS104895097	Cy5	R761H
Mix 2	F479L	RS104895083	ROX	F479L
	R408Q	RS11466024	Cy5	R408Q
Mix 3	V726A	RS28940579	ROX	V726A
	P369S	RS11466023	Cy5	P369S
Mix 4	M694V	RS61752717	ROX	M694V
	M694I	RS28940578		
	K695R	RS104895094		
	I692Del	RS104895093		
	M680I (G/C)	RS28940580	Cy5	M680I
	M680I (G/A)	RS28940580		
Mix 5	A744S	RS61732874	ROX	A744S
	E167D	RS104895079	Cy5	E167D

Revision History

Document	Date	Description of Changes
OctoClario Software User Guide, 1.1.1	October 2025	Initial Release