ELIONOVA

ElioDX™ Cloud USER GUIDE

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Introduction

ElioDX™ Cloud is a secure, browser-based platform for managing Elionova diagnostic runs. It allows users to set up assays, assign cuvettes, monitor runs, review real-time signals, and export results—all within a single, intuitive interface. The platform ensures full traceability, streamlined workflows, and consistent data handling across all connected instruments.

Intended use

This **User Guide** provides step-by-step instructions for using **ElioDX™ Cloud**, from creating assays and managing cuvettes to running analyses and exporting data. It is intended for both new and experienced users and is designed to support efficient navigation of the platform, clear understanding of key features, and accurate, reliable operation of the Elionova diagnostic system.

Key Concepts & Terminology

This section introduces the core concepts and terminology used throughout **ElioDX™ Cloud**. Understanding these concepts will help users navigate the platform efficiently and interpret results correctly.

Term	***Definition***
Cuvette	8-well container into which samples can be filled. A cuvette is a part of an assay and a lot.
Well	Is one of the 8 grooves in the **Cuvette** where the substances will be added to.
Prepared Cuvette	Cuvettes which Elionova AG prepares and is packaged into individual pouches.
Empty Cuvette	A cuvette that has not been prepared yet. No substance has been added to any wells of the Cuvette.
Rack	Plastic frame holding 10 cuvettes.
Batch	Group of 5 cuvettes belonging together (in aluminum pouch). A batch is a subgroup of a Lot.
Physical	A physical cuvette has its own visible Data Matrix code. When you scan it, the Cloud registers that specific cuvette into your Cuvette inventory.
Virtual	A virtual cuvette is created by scanning the batch code on the pouch. The system then adds 5 cuvettes to the Cloud, even though their individual codes are not visible yet. This is only for the prepared Cuvettes.
Lots	The **Lot** page shows all created assay batches. Each lot represents a group of cuvettes produced under the same conditions.
Run	A **Run** is a single measurement performed on a reader using a selected assay and assigned cuvettes. It includes the setup, the measurement process, and the generated results.
Readers	Device that measures the samples in the cuvettes.

Analysis	The **Analysis** page displays processed data and calculated results from completed runs. Users can review measurement results and download data from multiple runs at once.
UUID	Sequence of numbers and letters which is not human readable and is generated randomly.
extID	The external Id is a sequence of numbers and letters which is human readable and not generated randomly.
Assay	Overall category which includes the analyte being measured, measurement method and timing.
Analyte	Substance that is being measured.
Sample Matrix	Substance that is being measured in.
Run title	The **Run Title** is the name given to a run. It helps users identify and organize measurement sessions in the system.
Run time	The **Run Time** is the duration for which the cuvette is measured. It can be set as a default value in the assay settings or adjusted individually for each run.
Status	**Status** indicates the current state of a cuvette or a run or a reader in the system.
dC	The slope (evaluation parameter): a linear regression curve of counts vs time.
CPS	Fluorescent count per second

Getting Started

Log in **ElioDX™ Cloud** with your provided credentials. This is usually, https://<name-of-company>.eliodx.com. As an example, this would be https://elionova.eliodx.com for Elionova.

General Workflow

This shows a general workflow for someone wanting to analyse a Cuvette in the **ElioDX™ Cloud**. The steps 1.a, 1.b and 1.c are only if you want to create your own Assay.

1. Add Cuvettes to Cloud
    a. Add Cuvettes to a Lot
    b. Prepare the physical Cuvettes
    c. Set the Lot as Prepared
2. Create and Edit a Run
3. Measure the Cuvette
4. Analyse the Results

DIY Assay Preparation

Setup

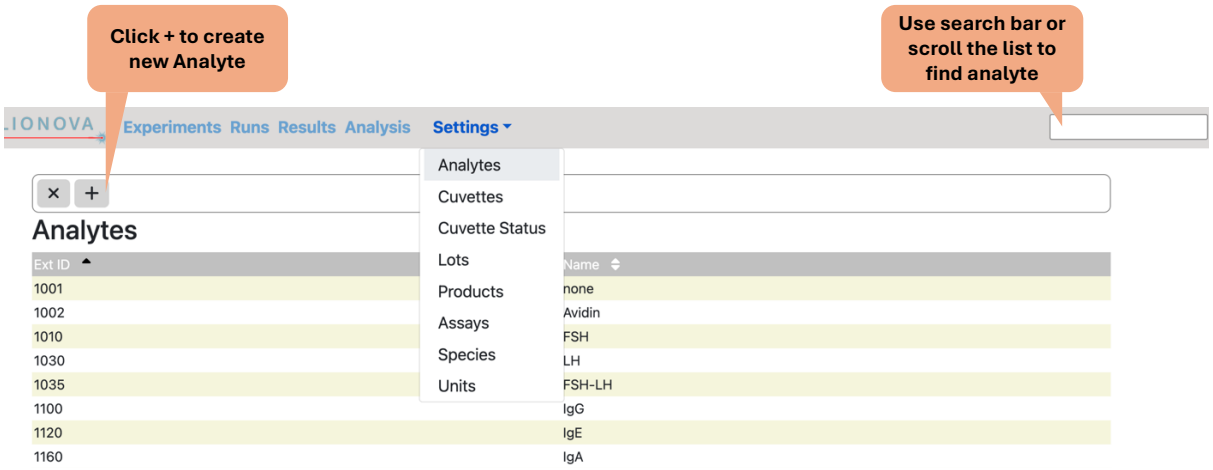
For the DIY workflow to work without any issues you should prepare the following things first.

- Create at least 1 Analyte
- Create at least 1 Unit
- Create an Assay

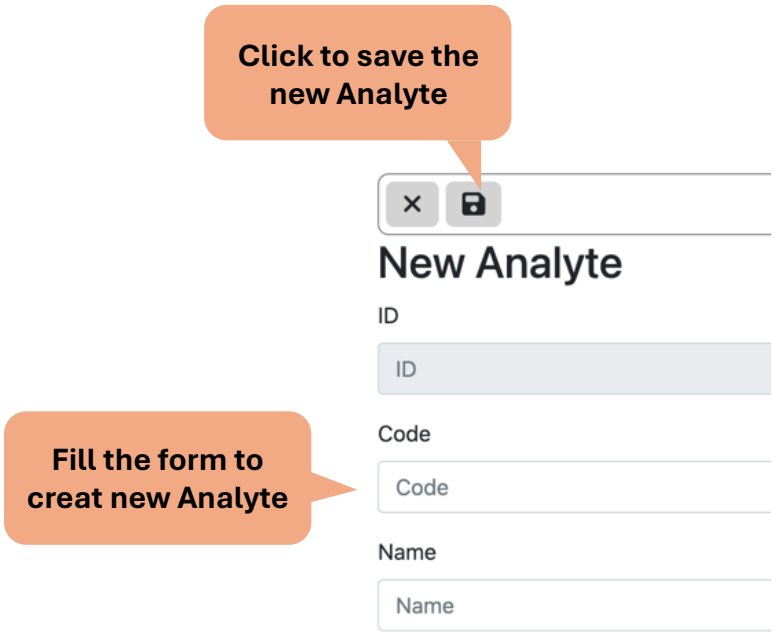
Create an Analyte

ElioDX™ Cloud → Settings → Analytes

• Check if the analyte already exists.



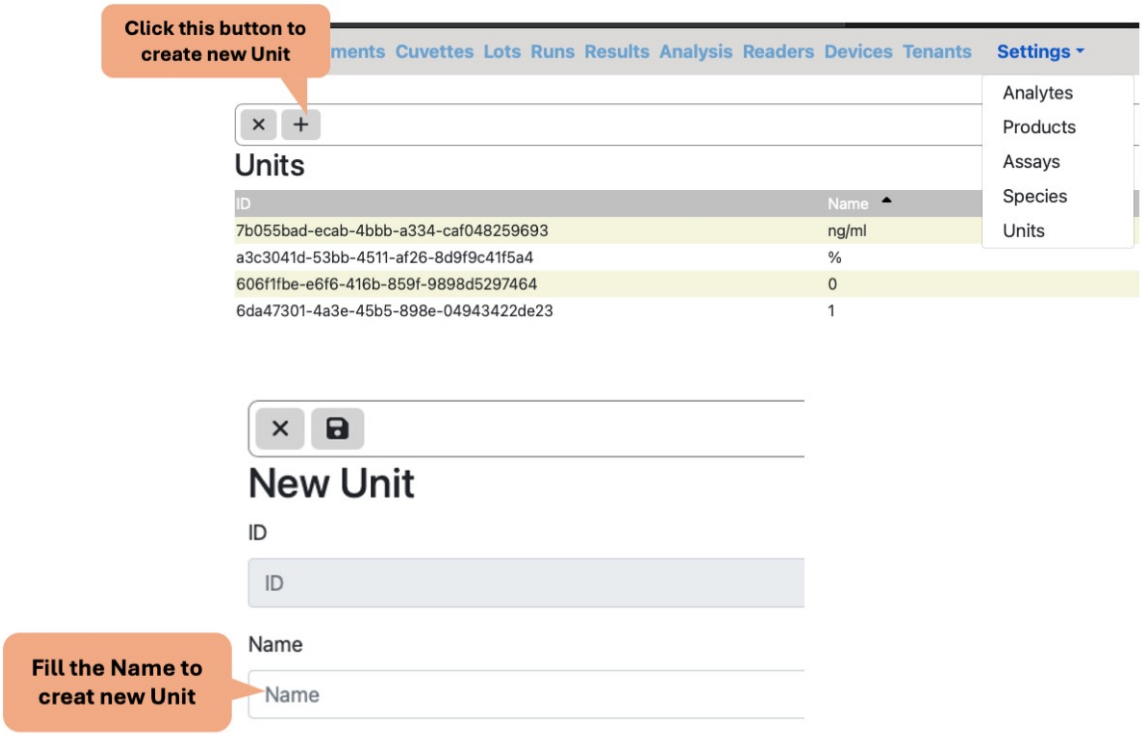
• If Analyte does not exist, click + to create a new Analyte.



Create a Unit

ElioDX™ Cloud → Settings → Units

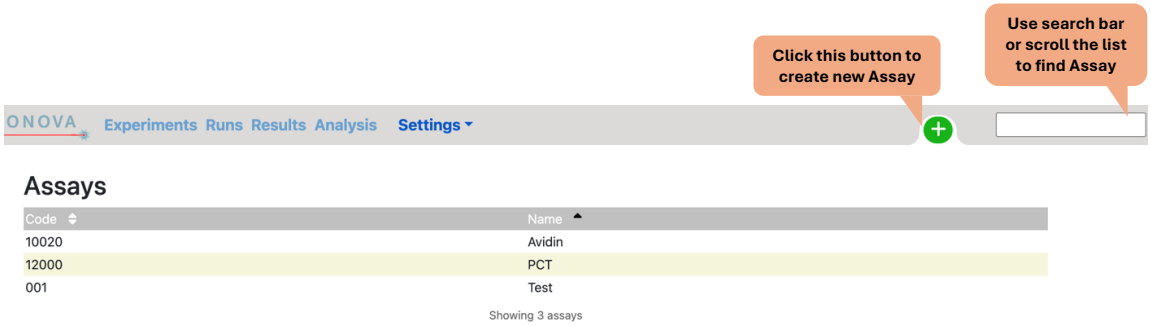
The Create Unit function allows users to define a new measurement unit that can be assigned to assay results. When creating a unit, the user specifies a unit name (e.g., ng/mL, IU/mL, %, etc.). once created, the unit becomes available for selection within assay configurations and result reporting.



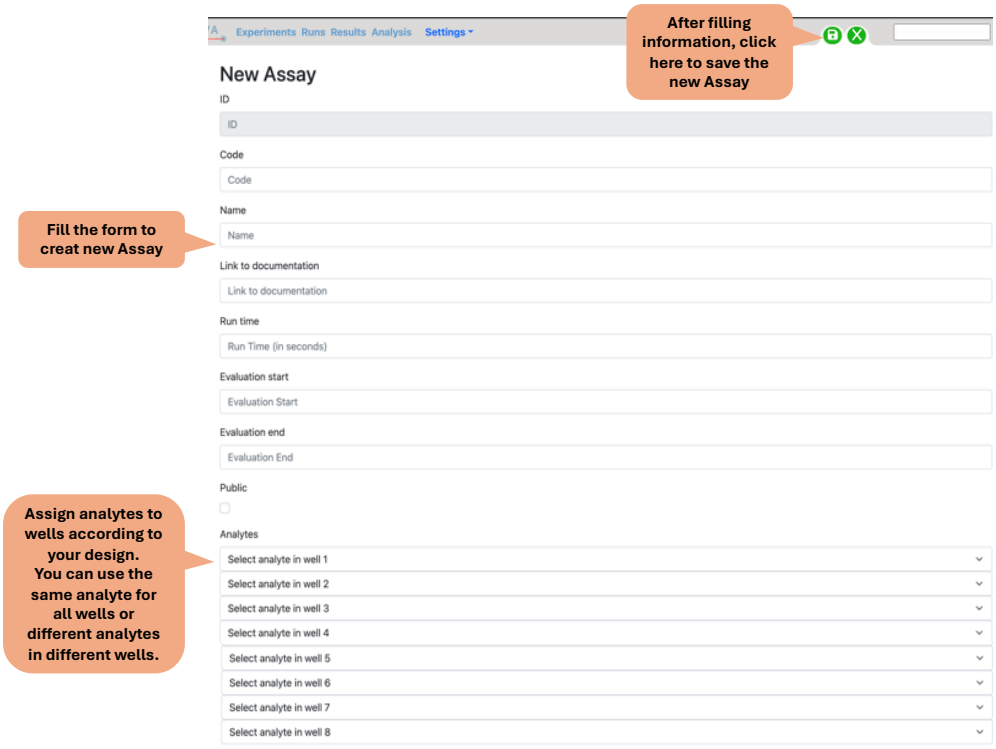
Create an Assay

ElioDX™ Cloud → Settings → Assays

• Check if the assay already exists.



• Create an assay.



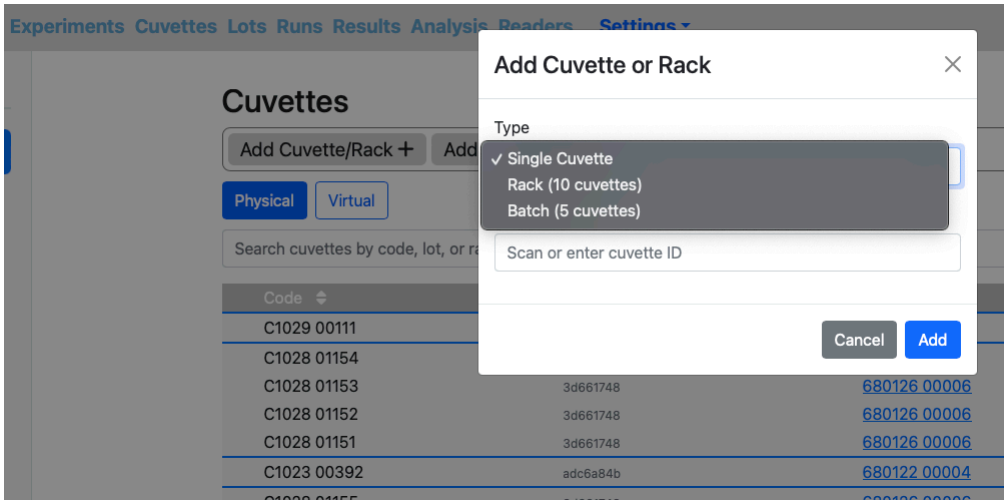
• If an analyte is missing, go back to Analytes and add it.

Add Cuvettes to the Inventory

This step allows you to register empty cuvettes in the system.
In the **Cuvettes** tab press on *Add Cuvettes/Rack.* You can choose the types:

- **Single Cuvette** – Scan the individual barcode of one cuvette.
- **Rack (10 cuvettes)** – Scan rack barcode containing 10 cuvettes.
- **Batch (5 cuvettes)** – Scan batch barcode on pouch of cuvette.

Click the *Scan cuvette ID* and scan the code with a barcode scanner. This will automatically populate the field, then click *Add* to register the cuvette(s).

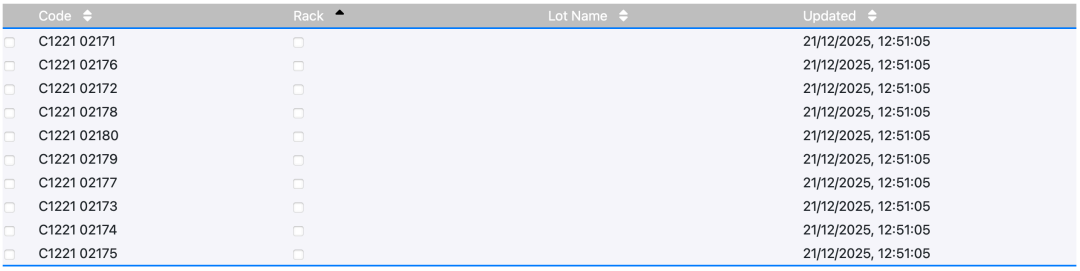


In case of adding a **Batch** this will create **Virtual Cuvettes** that have already been prepared. If so then you can skip to the step Create a Run

Prepare Cuvettes

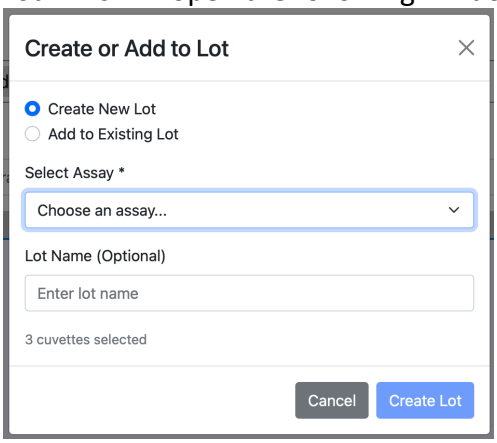
Before preparing any Cuvettes we require them to be added to a **Lot**. The Lot is created automatically but we still need to add select which Cuvettes we want to be added into the same Lot.

1. In the **Cuvettes** tab you select either a single cuvette by clicking on the left checkbox. Clicking on the checkbox below *Rack* will select the whole rack. The blue lines are there to show separation between racks.



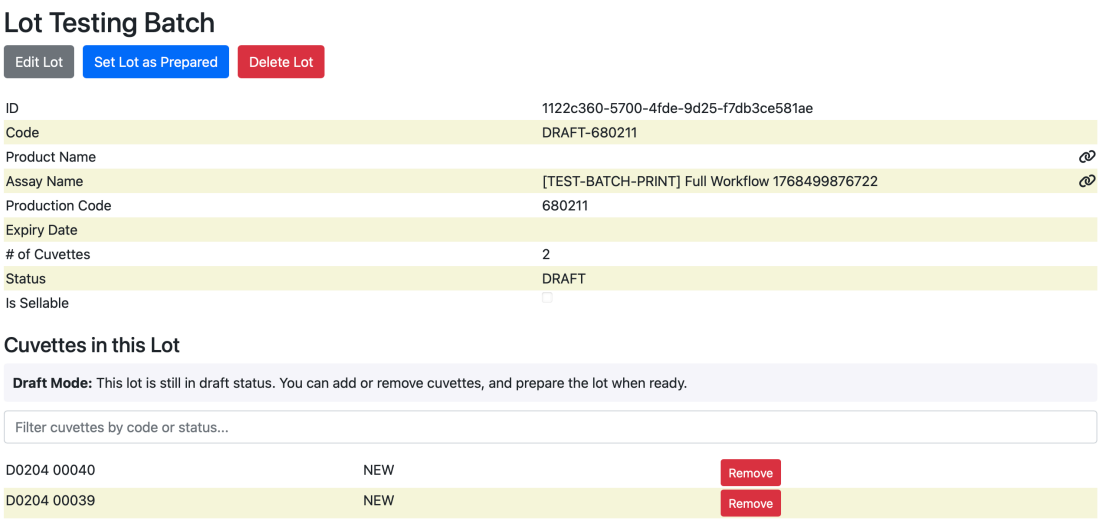
Code	Rack	Lot Name	Updated
C1221 02171			21/12/2025, 12:51:05
C1221 02176			21/12/2025, 12:51:05
C1221 02172			21/12/2025, 12:51:05
C1221 02178			21/12/2025, 12:51:05
C1221 02180			21/12/2025, 12:51:05
C1221 02179			21/12/2025, 12:51:05
C1221 02177			21/12/2025, 12:51:05
C1221 02173			21/12/2025, 12:51:05
C1221 02174			21/12/2025, 12:51:05
C1221 02175			21/12/2025, 12:51:05

2. After selecting at least a Cuvette we can add them to a Lot by pressing *Add to or Create Lot*. This will open the following window:



We can choose if we want to add the selected Cuvettes to a new Lot or an existing one. The Assay is required and it will let you look through the Assays that were created.

3. Press *Create Lot* or *Add to Lot* and the Cuvettes will be added to the lot that were selected. **IMPORTANT** You can only add additional Cuvettes to a Lot that is in DRAFT. You cannot add anymore Cuvettes once the Lot is prepared. The same goes for removing Cuvettes from a Lot.
4. Take the Cuvettes that are in the Lot and physically prepare them. If you want to add more Cuvettes to the Lot this is still possible
5. After you prepared the physical Cuvettes come to the Lot that you created earlier through the **Lots** tab and open it. You can verify once again that the Cuvettes that you prepared match the Cuvettes in the Lot. Otherwise, you can still add them now.
6. Once you are happy with the lot you can press on *Set Lot as Prepared*. Which sets the whole Lot as Prepared and will not let you make any more modifications.



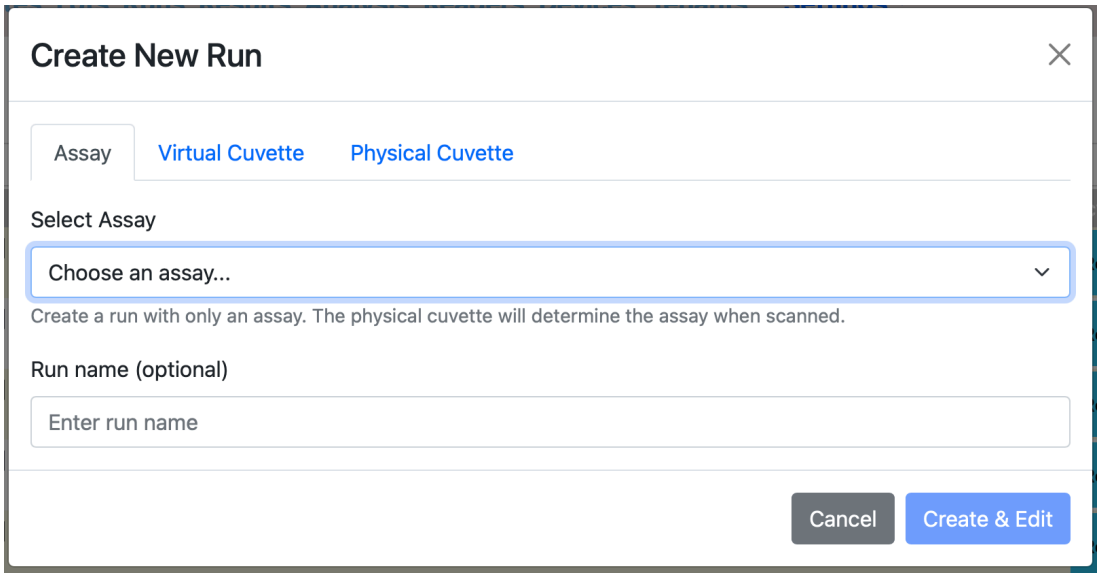
With these steps, we have now created a Prepared Cuvette.

Create and Edit a Run

We are going to describe now how to create a new Run which is required for a Cuvette to be recognized by the Reader.

Create new run

Go to the **Run** tab and click ⊕ to create a new Run. A new window will open that looks as follows



When creating a new run, you can choose between three options: **Assay, Physical Cuvette, or Virtual Cuvette**. They have different purposes, quickly described in the table below.

Type	***Purpose***
Assay	Create a run that is associated to an Assay without the need to define a Cuvette. This is great for creating a template which can then be duplicated. A Cuvette can be associated with a Run while editing the Run itself.

virtual Cuvette	If a specific Virtual Cuvette wants to be used, then we can choose which Virtual Cuvette should be chosen. This is only for the Prepared Cuvettes.
Physical Cuvette	If we know which Physical Cuvette we want to use, we can associate them straight away. This is only useful for DIY Assays.

For each of the types a Run name can be entered which is helpful to identify your runs that were created.

Edit Run

The **Edit Run** page is where you configure the run before starting the measurement.
At the top, you can review:

- **Status** of the run
- Selected **Assay**
- **Lot** and **Cuvette**
- **Run Title**
- **Run Time** (can be adjusted for each run if needed)

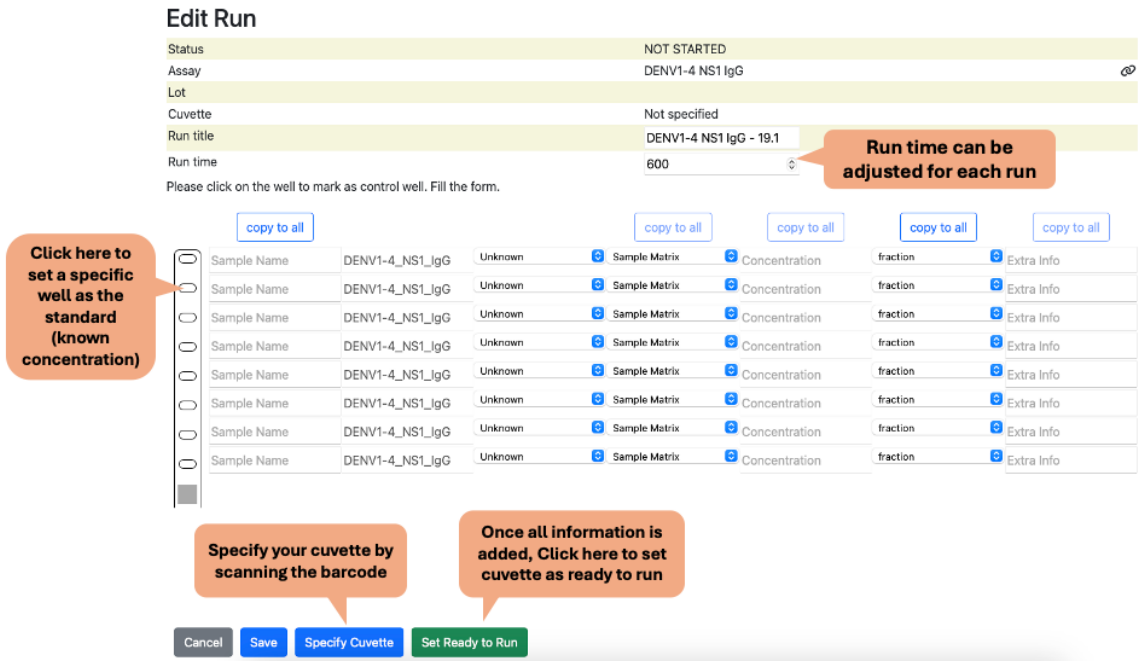
In the well table, you can:

- Enter **sample names**
- Define **sample matrix** and other details
- Click on a well to mark it as a **control** (known concentration), once you have select a well as control you can also set the concentration.
- Use **Copy to all** to quickly apply settings to all wells

At the bottom:

- Click **Specify Cuvette** to scan and assign the physical cuvette (if not already specified).
- Click **Save** to store changes.
- Click **Set Ready to Run** once all information is completed.

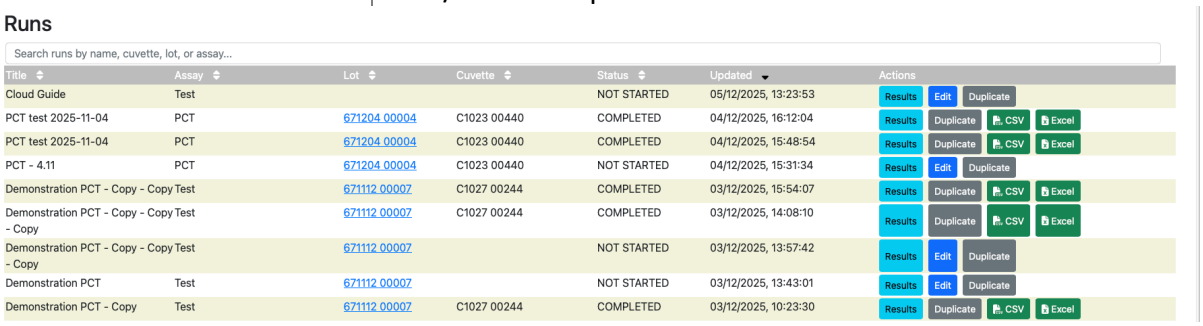
⚠ *Specifying the Cuvette and setting the run to "Ready to Run" is mandatory — the cuvette cannot be measured unless these steps are completed.*



Runs overview

The run overview is reached by clicking the **Runs** tab. Here will be an overview of your created and finished runs. A description of the columns are as follows:

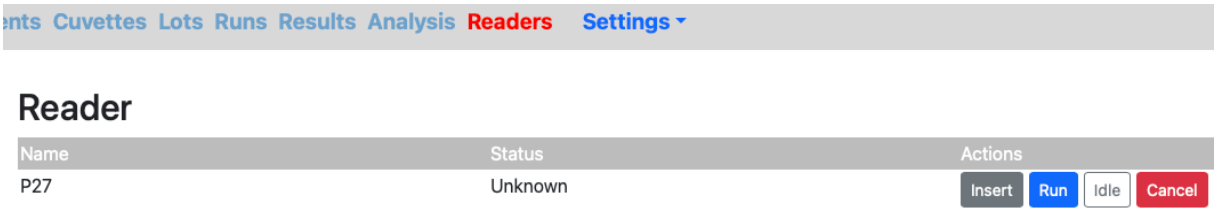
Column	*Description*
Title	Name of the run, defined by the user.
Assay	Name of the Assay (PCT, Test, …)
Lot	The lot number of the reagents used. Clickable to view lot details.
Status	Indicates the run progress: NOT STARTED, COMPLETED, etc.
Updated	Timestamp of the last update to the run
Actions	Results – shows results Edit – modify the specified run Duplicate – make a copy of the run (copies everything apart the Cuvette) CSV / Excel – export the run data



Start Measuring

Now that we have setup everything we need, we can add the substances into the physical cuvette. After we have added everything into the Cuvette we can go to the **Readers** tab. From here we can press the *Insert* Button. This will open the door and bring the sled to the front. Place the cuvette onto the sled. Click *Run* to start the measurement.

Action	*Function*
Insert	Prepares the reader to insert the Cuvette.
Run	Start the process of analyzing the Cuvette.
Idle	To close the door and put the reader into idle mode.
Cancel	To cancel the current action.



View Multi-Run Results

Left Panel: Completed Runs

- Search bar allows filtering completed runs by name, assay, cuvette ID, or lot.
- Each completed run card shows:
  - **Run title**
  - **Number of wells** included
  - **Cuvette ID**
  - **Lot number**
  - **Assay type**
- Selecting a run displays its wells on the analysis plot.

Right Panel: Multi-Well Analysis Plot

- Displays **CPS (Counts per Second)** across **Sample time** for all selected wells.
- Each well/run is represented by a different color in the legend for easy comparison.
- The chart enables visual comparison of:
  - Signal intensity
  - Signal growth pattern
  - Differences between wells or repeated runs

Export data

The data can be downloaded for further processing with the buttons *Download CSV* and *Download Excel*.

Troubleshooting

Run cannot start

- Check if status is set to *Ready to Run*
- Ensure cuvette is specified
- Verify reader is not in Idle mode

Reader does not move after clicking Insert

- Refresh the page
- Check reader connection
- Restart reader if needed

Cuvette not recognized

- Verify correct lot
- Ensure correct Data Matrix scan
- Check if cuvette is already assigned

No signal / flat curve

- Check sample preparation
- Confirm correct assay selection
- Verify run time settings

Best Practices

- Always verify assay and lot before measurement
- Avoid reusing cuvettes
- Set run to *Ready to Run* only after verifying all wells
- Use clear run titles for traceability
- Export and archive results regularly
- Avoid changing run parameters mid-study

FAQ

- **Can I change the run time?** Yes, run time can be adjusted per run unless restricted by assay settings.
- **Can I duplicate a run?** Yes, use the *Duplicate* function in the Runs table.
- **What is the difference between physical and virtual cuvette?** A physical cuvette has a visible Data Matrix code. A virtual cuvette is generated by scanning a batch code.
- **Why can't I start the run?** The run must be set to *Ready to Run* before measurement.

Support

If there are any questions about the functionality of the **ElioDX™ Cloud** or you require support. You can send us an email at support@elionova.com.