Covmatic

PCR STATION PROCESS FLOW

Last updated: 10 Oct 2020

Release: API v1.4

Covmatic

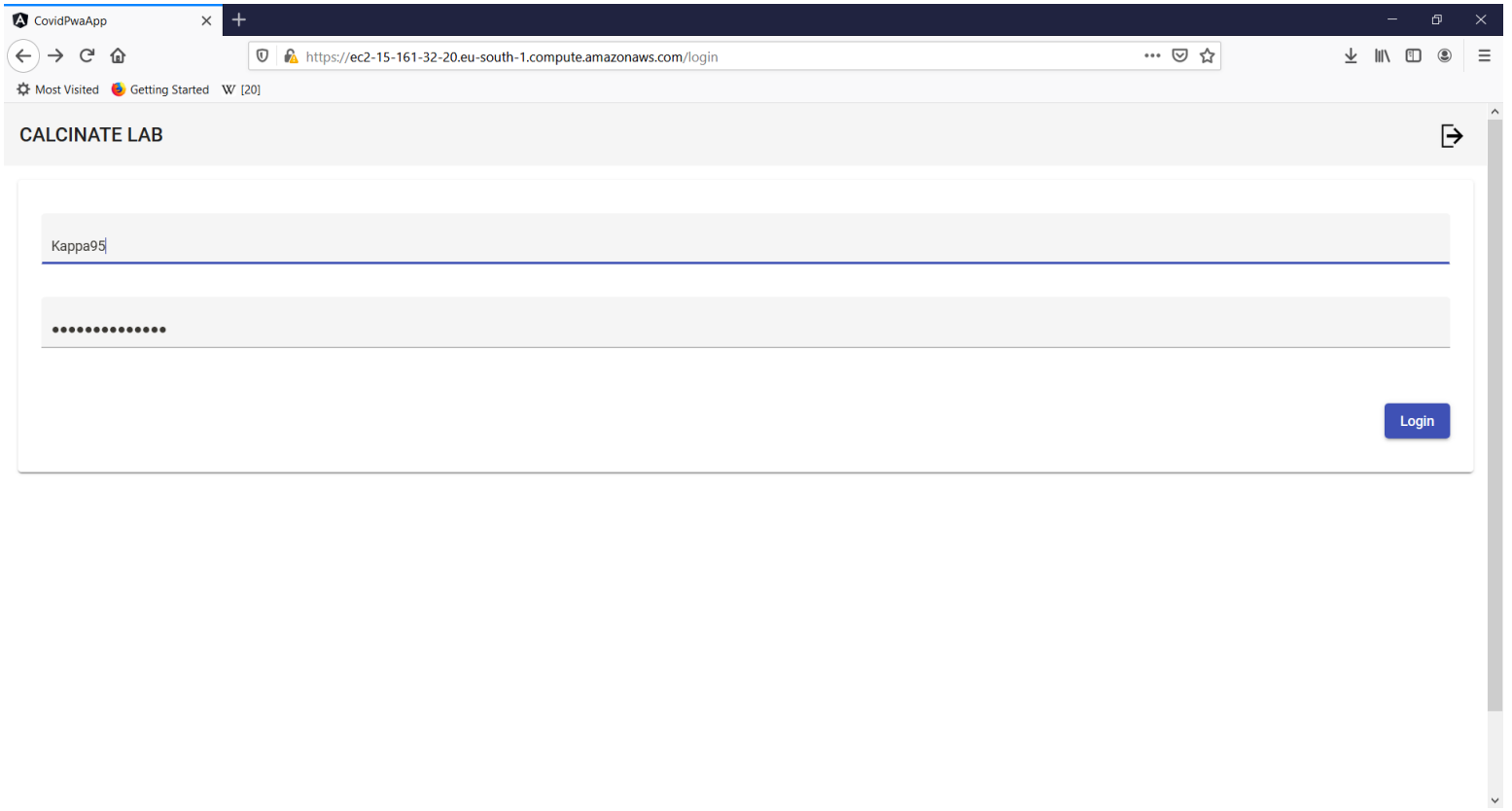
This is a process flow and instructions document for the PCR station of the COVID-19 testing Lab at Ospedale F.M. Passi, developed under the Covmatic project

This Process flow document is valid for the **BioRad API version 1.4**

ALWAYS Print this document in A4 Landscape format to ensure good readability

Starting up

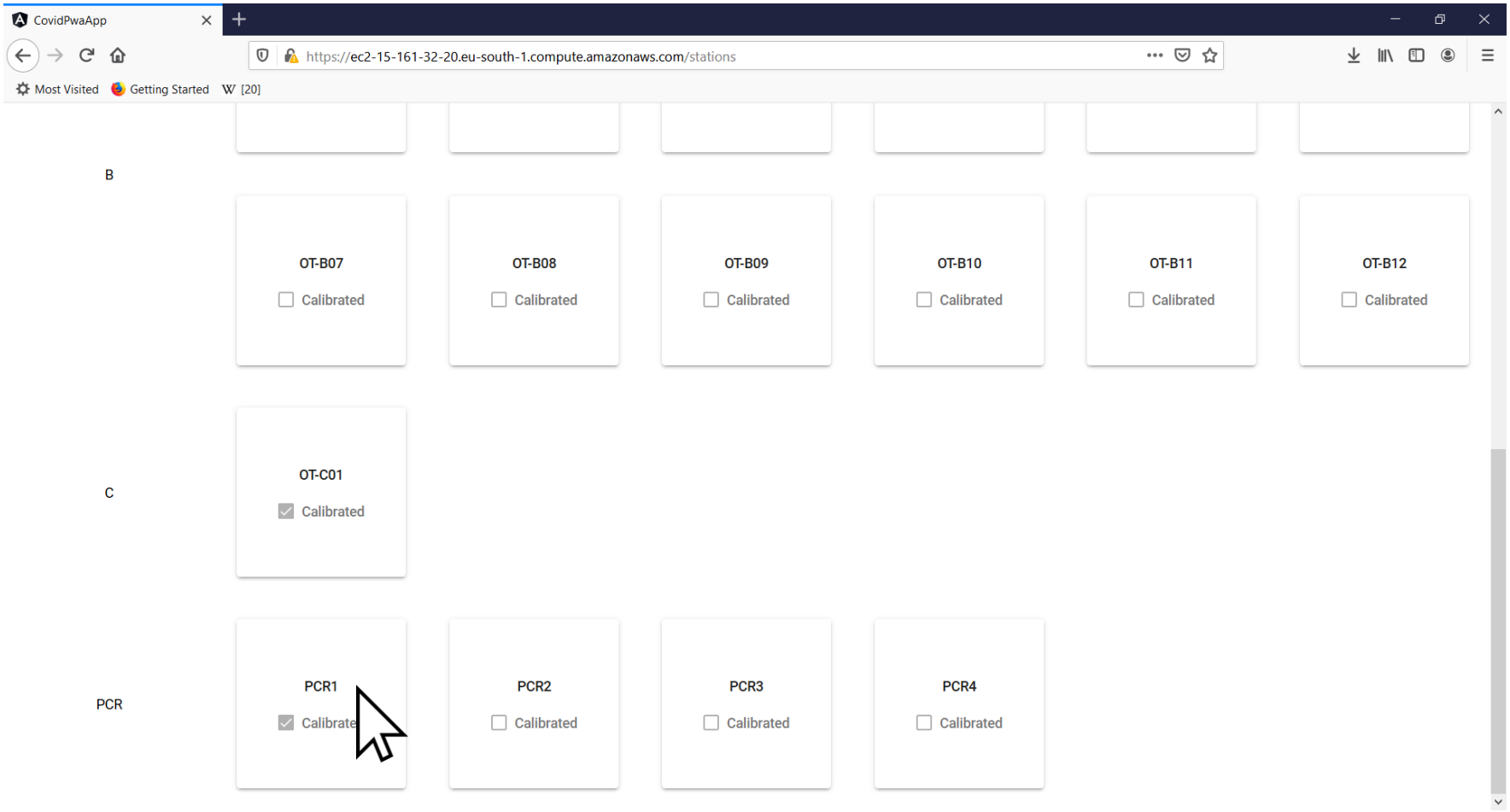
In case you just started the system (computer), open the Covmatic digital interface webpage with the link provided:
https://ec2-15-161-32-20.eu-south-1.compute.amazonaws.com/login
Enter your credentials and Login



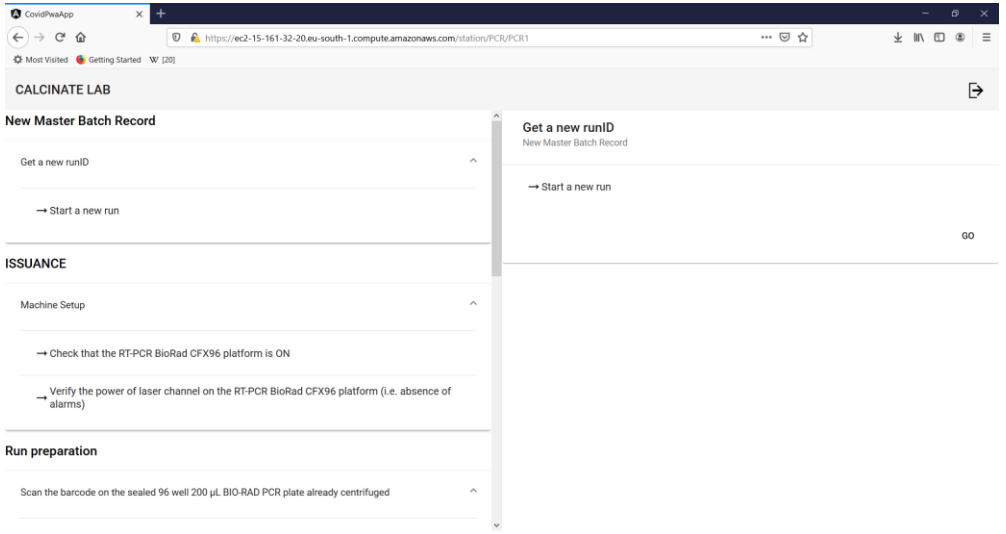
Remember to use a face mask and hand gloves!

Starting up

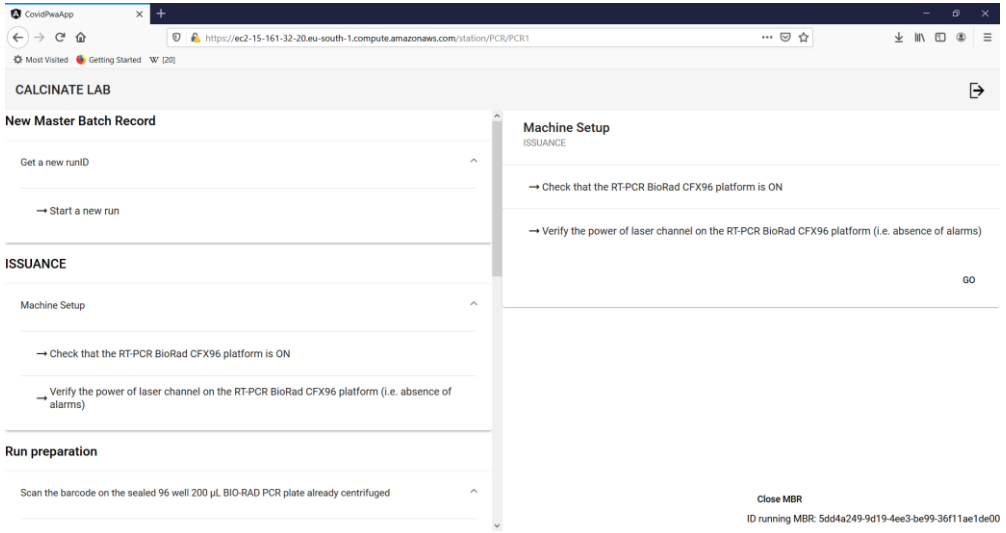
Scroll down and select the number of the PCR station that you're working on. Please **BE CAREFUL** while making this selection. Select that PCR number on which you are working:



Steps

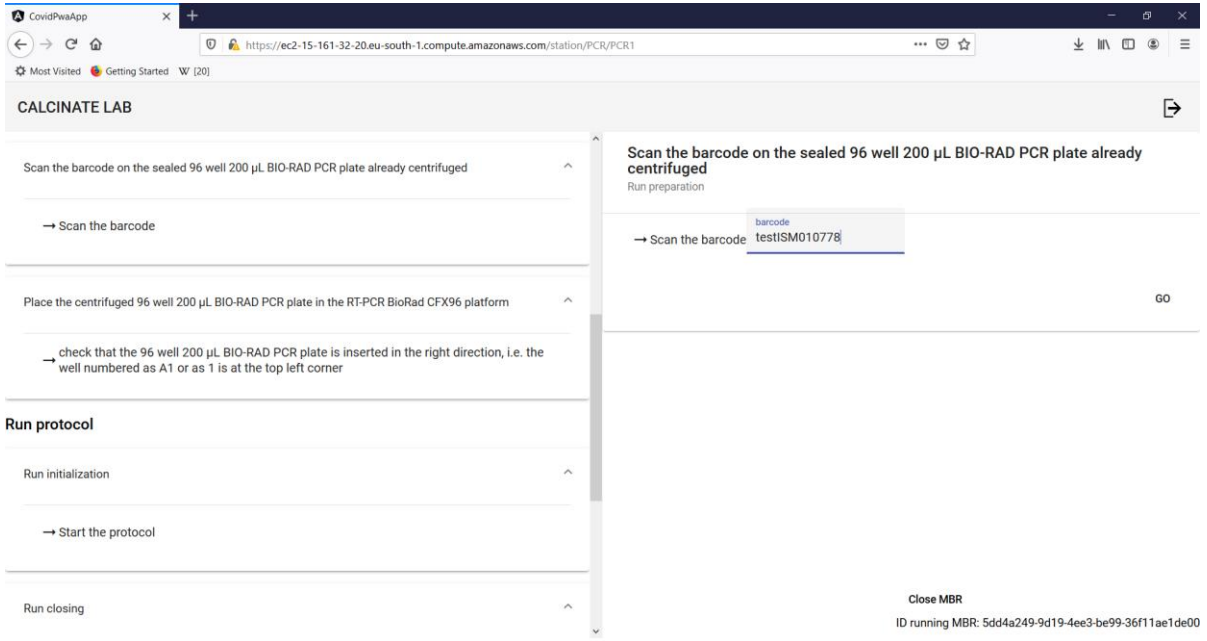


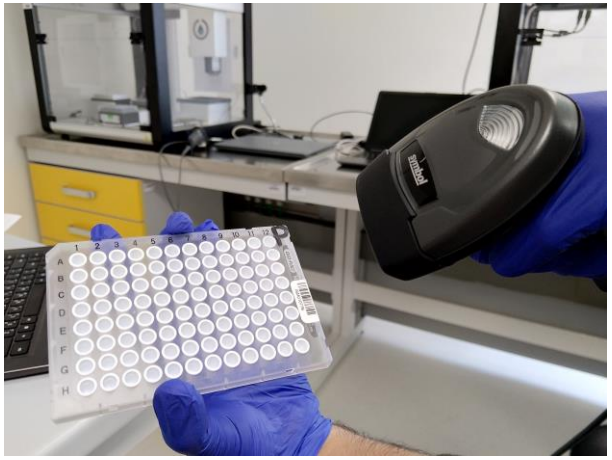
Step 1: Make sure that you have the PCR well plate and it is ready to be processed. Click “Go” on this page



Step 2: Check that the PCR is connected to the computer (with USB serial) and it is switched ON and in IDLE state. Make sure that there are no alarms.
Click “Go” on this page.

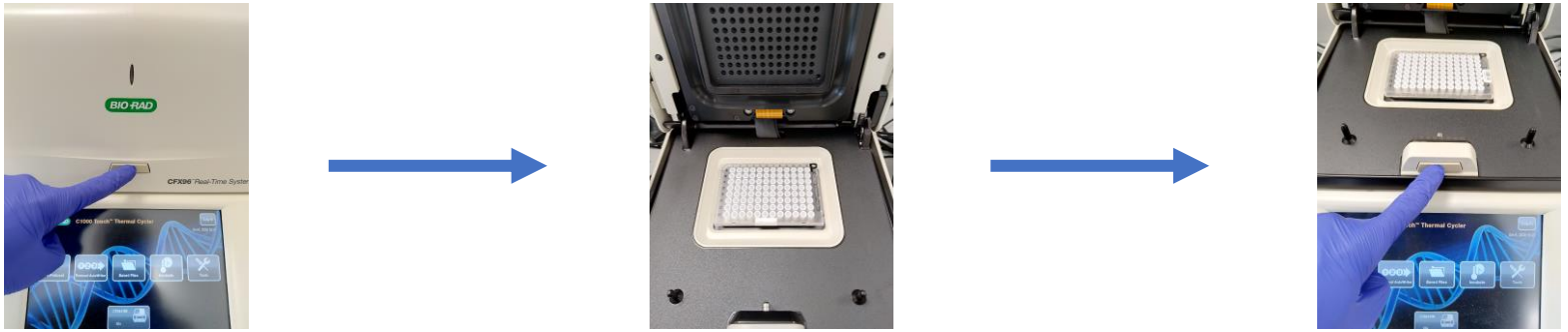
Steps

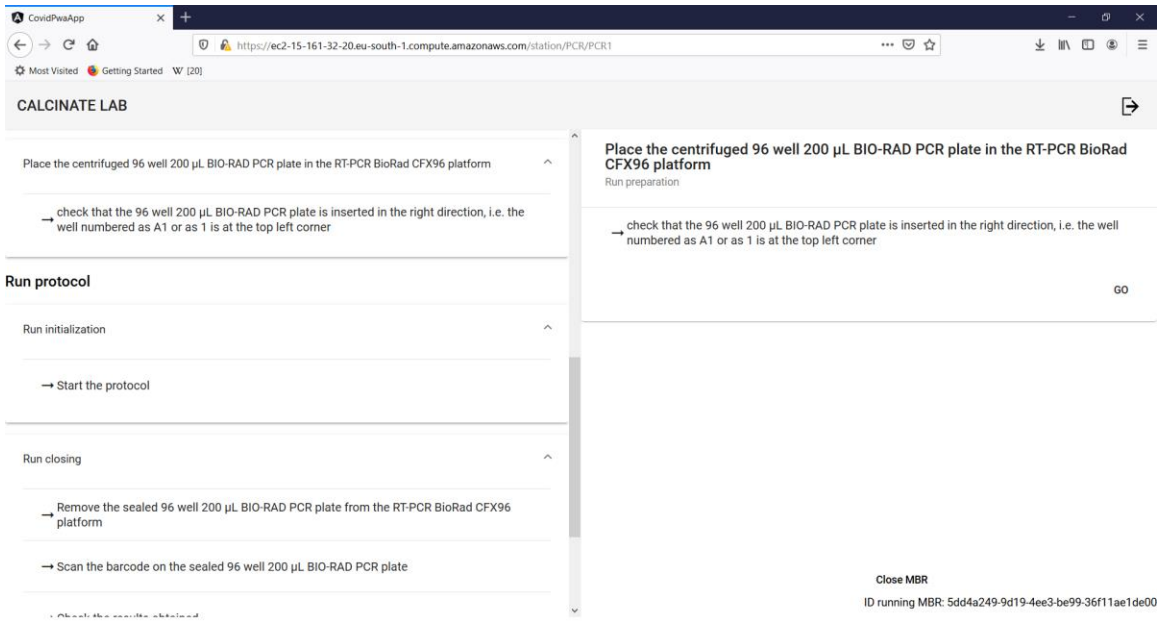




<u>Step 3:</u> Scan the Barcode on the PCR well plate. Make sure that the Barcode is scanned ONLY ONCE. Click “Go” on this page once the barcode is scanned

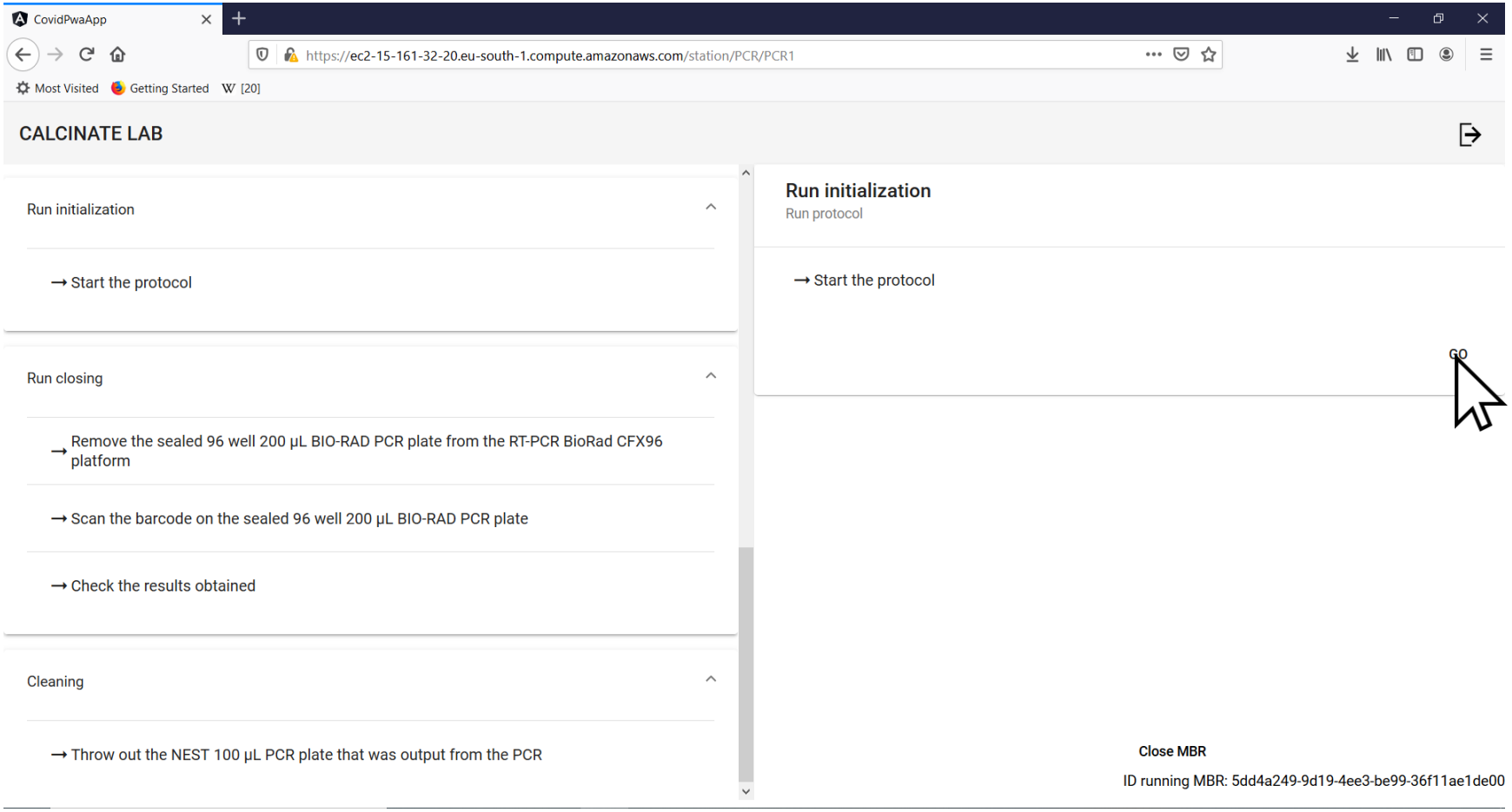
Steps





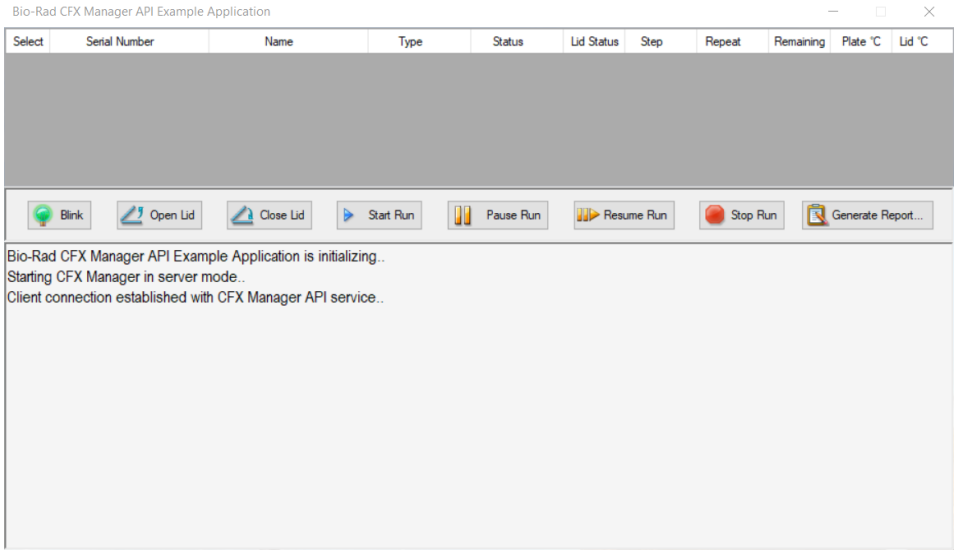
<u>Step 4:</u> Open the PCR module lid by pressing the button, insert the PCR well plate in the correct position (as shown), and press the button again to close the PCR lid. Click on “Go” AFTER completing this procedure

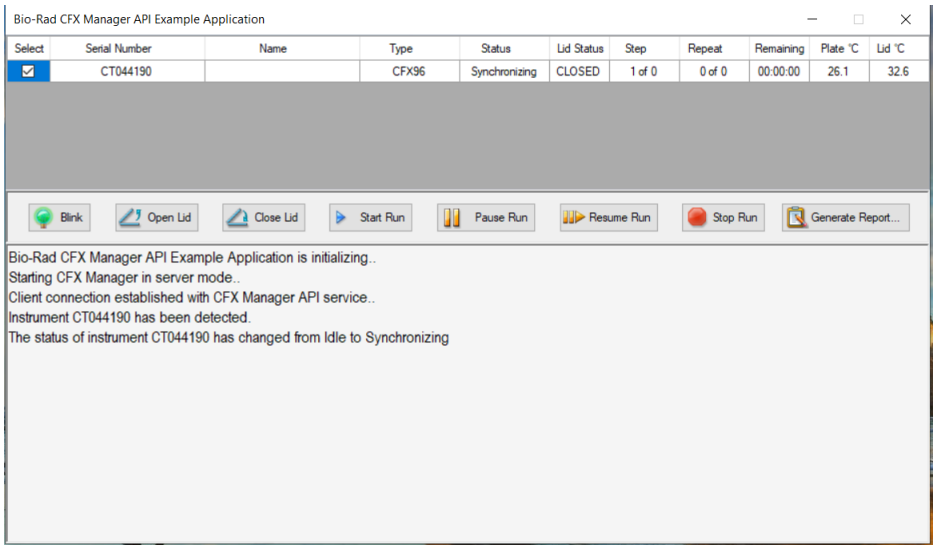
Steps



Step 5: AFTER the lid is CLOSED, make sure that there are no applications of CFX Manager or CFX Maestro or BioRad API running on the computer. Close these applications and wait for 15-20 seconds if they are running. THIS IS CRUCIAL, OTHERWISE THE API WILL NOT LAUNCH. Click on “Go” to start the Protocol

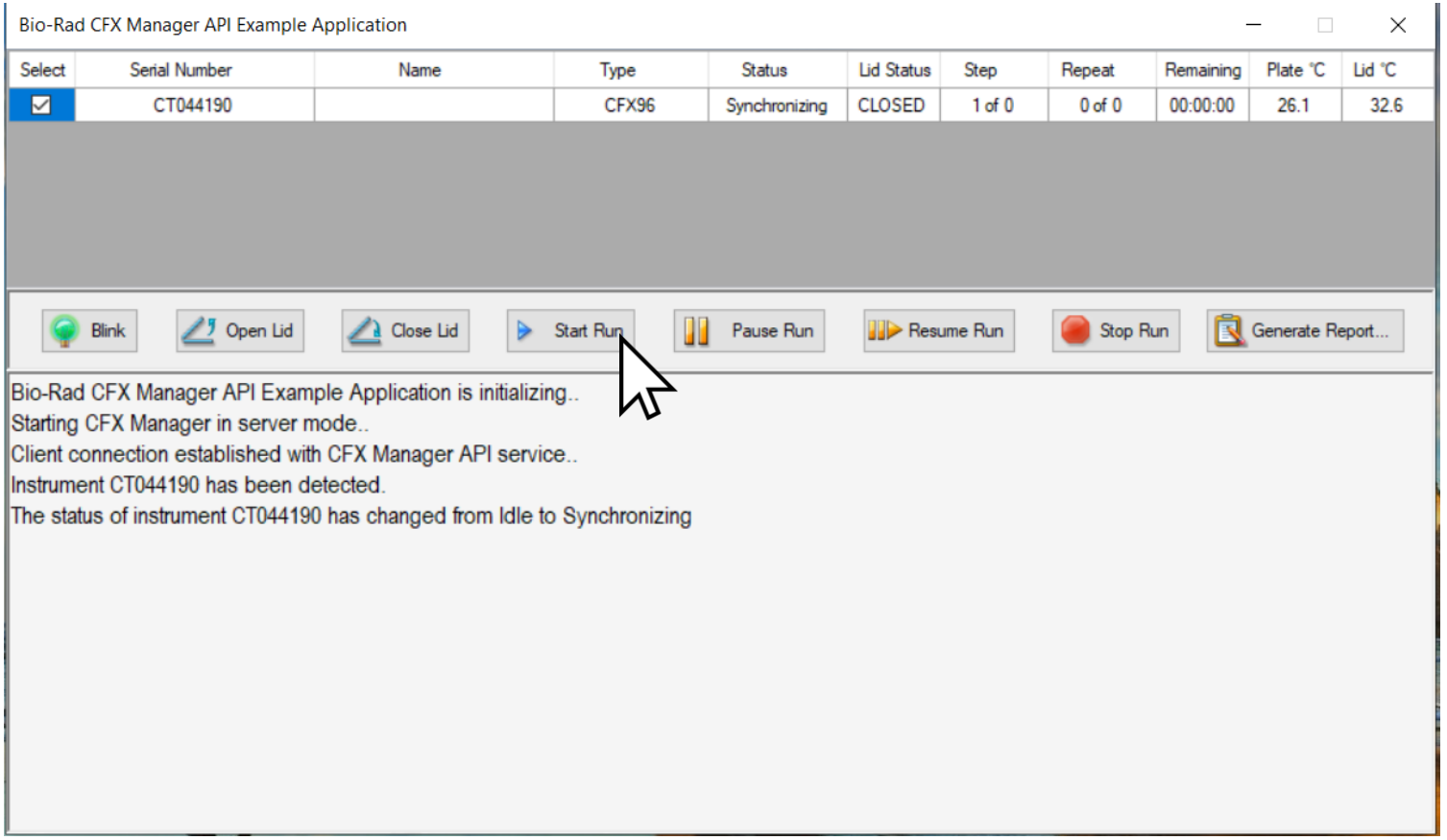
Steps





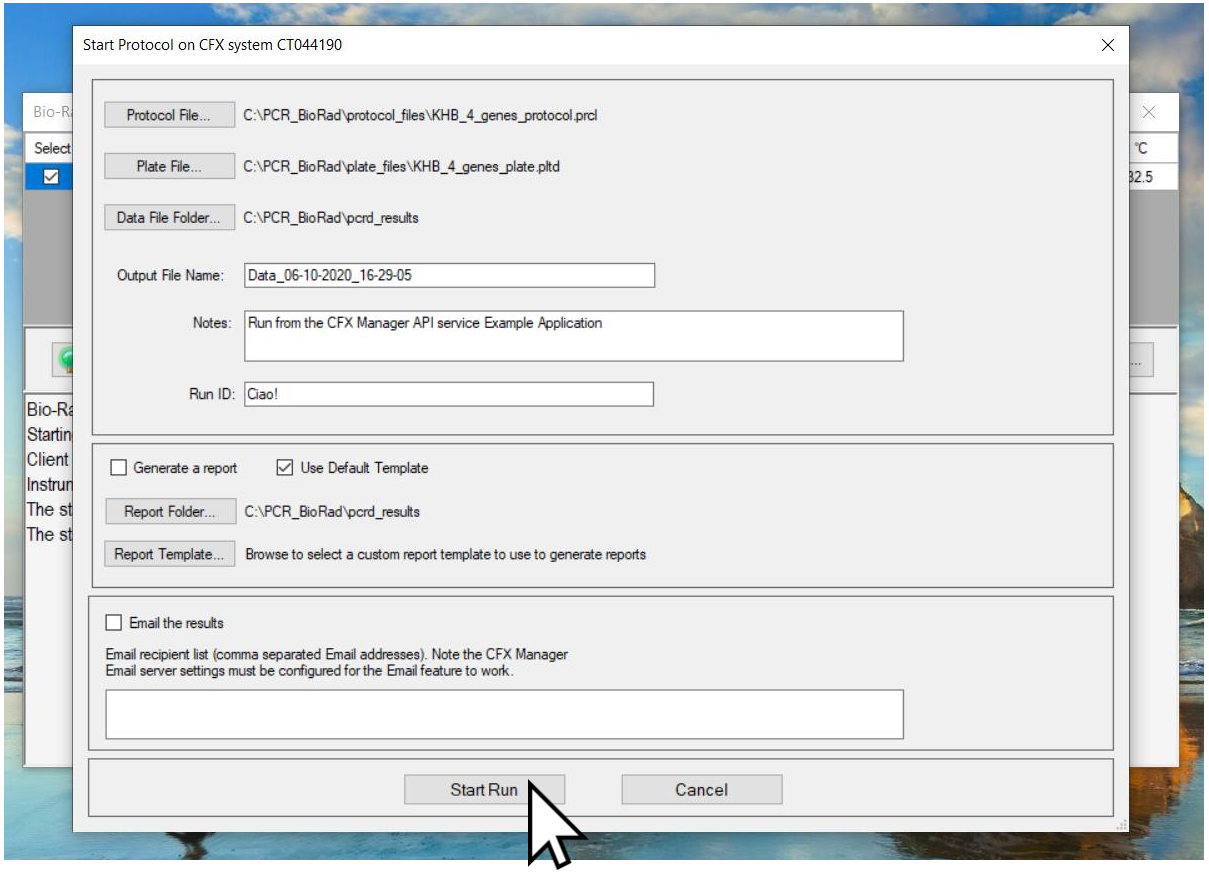
Step 6: The BioRad API will launch automatically (as shown above). Allow some time for the API to detect the instrument. **DO NOT CLICK ON ANY BUTTONS IN THE API BEFORE THE INSTRUMENT IS DETECTED**. Once the instrument is detected, the API will display it as shown above.

Steps



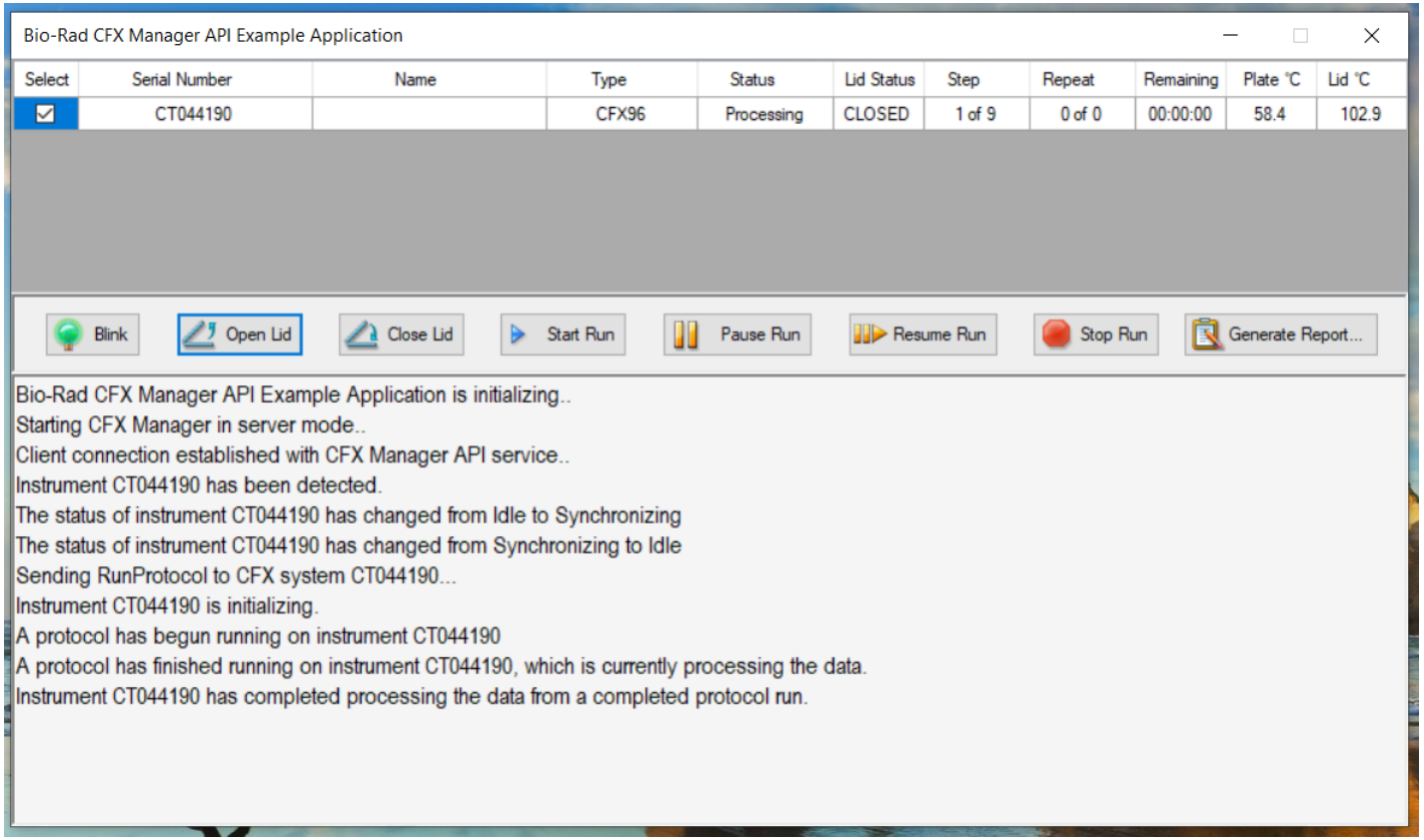
Step 7: Once the Status of the instrument changes from “Synchronizing” to “Idle”, click on **“Start Run”**. A new window will open

Steps



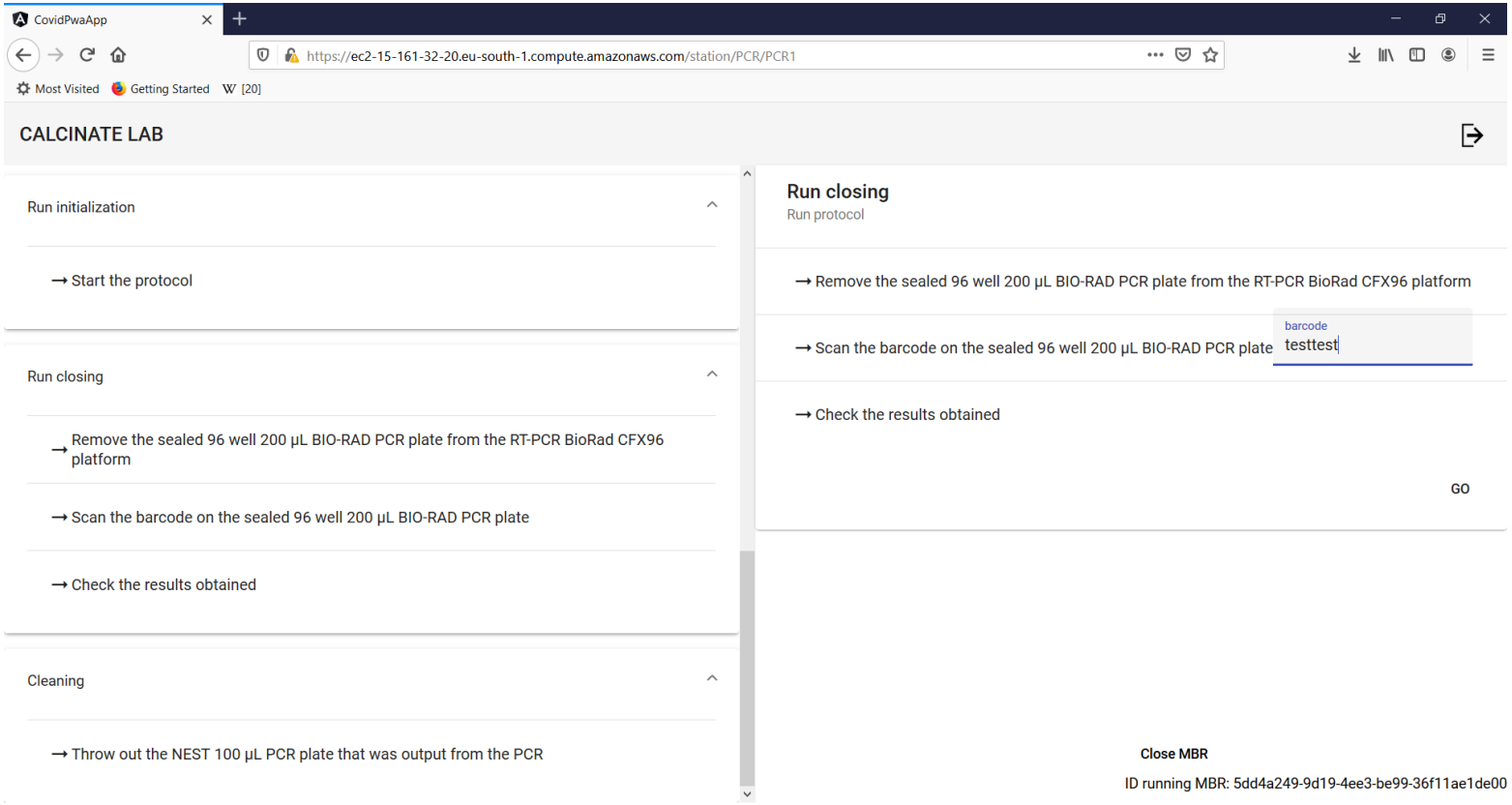
Step 8: Make sure that the correct Protocol file, Plate file and Data File Folder are selected. In this case, they are selected by default. Click on **"Start Run"**. The PCR will initialize and then the protocol will start.

Steps



Step 9: Once the Protocol run is complete, allow some time for the API to process the data. DO NOT CLOSE THE API APPLICATION MANUALLY. The **API will close automatically** once it has processed the data

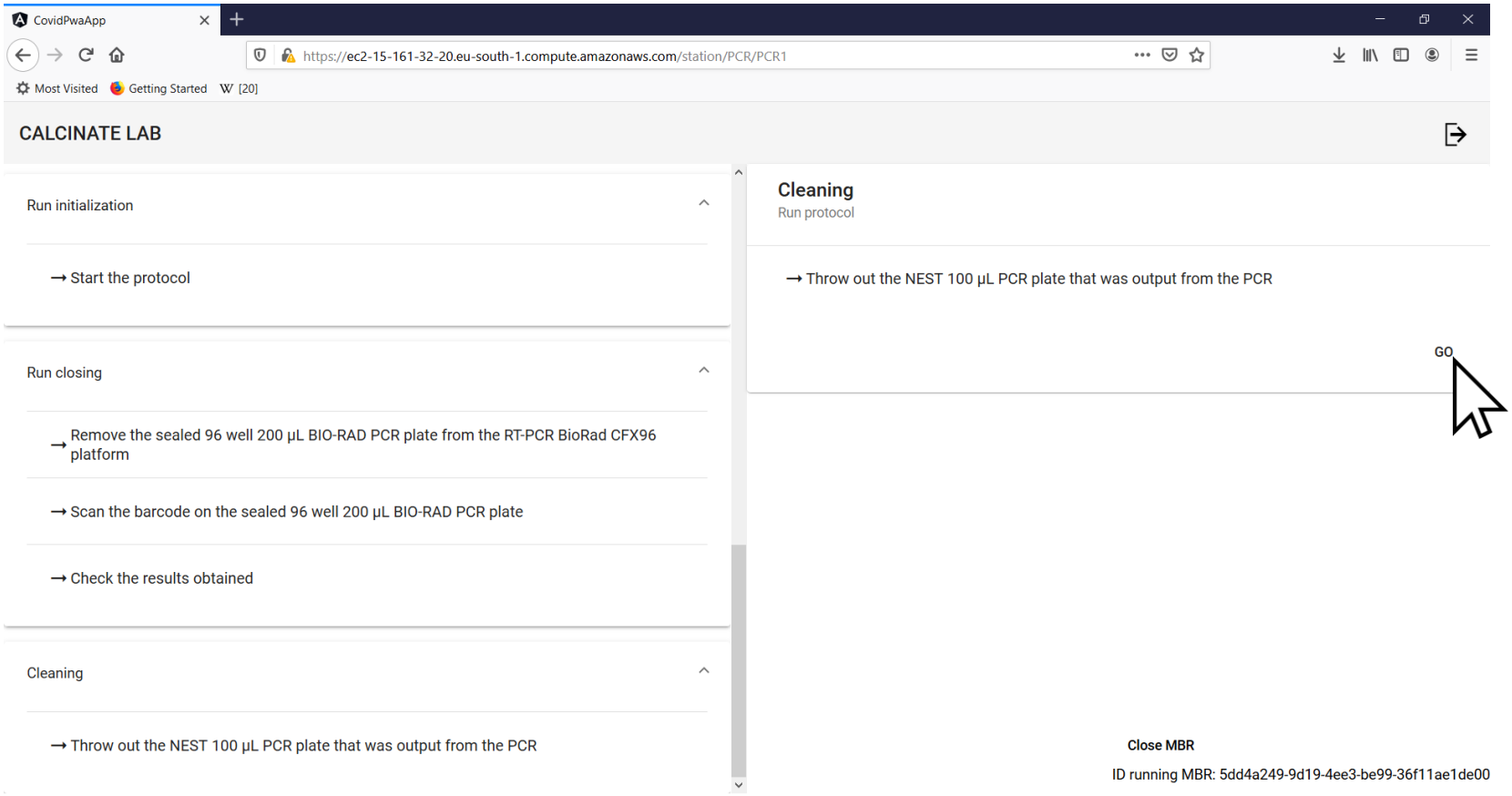
Steps



Step 10: Go back to the Covmatic digital interface webpage. **Remove the well plate from the PCR** and scan its barcode again (take care! The PCR lid gets very hot during the protocol run). Click on "Go" after scanning barcode

To check the results of the run, go to "C:\PCR_BioRad\pcrd_results" folder and open the most recent .pcrd file
Alternatively, you can also access the .pcrd results of by going to "OneDrive\Desktop\BIO RAD\TEST RESULTS" and selecting the correct PCR folder

Steps



Step 11: Throw away the used well plate safely and Click “Go” on this page. The protocol run is complete, and the data is saved in the digital server and on the local computer. The PCR is now ready for the next run!