

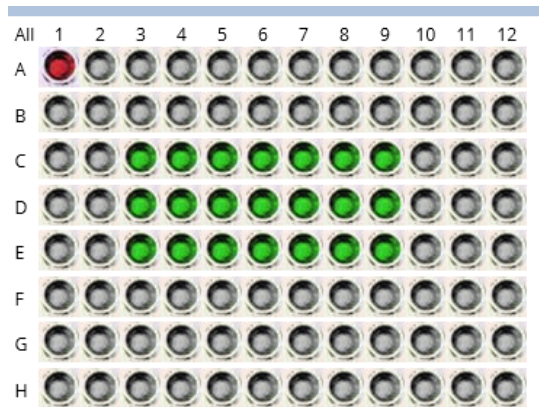
FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Using the Mastercycler X50s		
Status: Published		Document ID: 63607
DATE EFFECTIVE 12/21/2023	APPROVED BY Nuclear DNA Technical Leader	PAGE 1 OF 2

Using the Mastercycler X50s

1 Procedure

- 1.1 Turn on the Mastercycler X50s via the power switch at the back of the instrument near the power cord socket. The status lamp should light up and the fan will start. Take care not to loosen the power cord.
- 1.2 Open the lid and flip the lid handle up as far as it will go. If present, remove the red-framed place holder plate from the thermoblock.
- 1.3 Load the thermoblock with the appropriate sample tubes or sample plate.
 - 1.3.1 If using individual tubes or strips, place them as close to the center of the thermoblock as possible (see Fig. 1)
- 1.4 When using individual tubes, a minimum of 5 tubes **must** be loaded per run; if there are less than 5 tubes in the test batch, add empty tubes to the thermoblock.



- 1.5 Fig. 1 Sample loading in the thermoblock
- 1.6 Close the heated lid and move the lid handle down far enough to lock it
- 1.7 The instrument interface displays the home screen with the instrument status in “Idle”.
- 1.8 Go to Program Manager → Shared with Me → Casework
- 1.9 Select the test batch protocol and select the ‘Start Program’ button.

FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Using the Mastercycler X50s		
Status: Published		Document ID: 63607
DATE EFFECTIVE 12/21/2023	APPROVED BY Nuclear DNA Technical Leader	PAGE 2 OF 2

- 1.9.1 Select the ‘Confirm’ button. The screen will display the protocol and the instrument status will change to “Running”. This screen will also display the time remaining for the run to reach completion.
- 1.10 Any previously run protocols can also be selected from the “Recently Used” list on the home screen.
- 1.11 Once the run is in the final 4°C soak step of the program, the run is complete. The instrument will display “Finished” as the run status and the time remaining on the program should be “00:00:00”.
- NOTE: The 4°C storage soak step is not meant to store samples for an extended period. Samples should be removed from the instrument and placed in the 4°C refrigerator at the earliest convenience.
- 1.12 When the run is complete you **must** select the ‘End Program’ button. If this is not done before the instrument is powered off, the screen will display an error when the instrument is turned back on again.
- 1.13 Open the lid and lift the lid handle up as far as it will go. Remove the sample tubes/plate. Close and lock the lid. Return to the home screen.
- 1.14 All instruments should be powered off at the end of the day.
- 1.15 Store the samples in a 4°C refrigerator until ready to proceed with performance of the next test scheduled.
- 1.16 Complete any LIMS tasks as necessary.