

Washing/Microarray Scanning Steps

1. Head over to the microarray scanning room and boot up the program. It will take some time to warm up, so prepare the program ahead of time by switching on the microarray scanner, then the computer, then the program.
2. Clean slide holder chamber and the two glass chambers in milliQ water 4 times and dry with a kim wipe.
3. Pour Oligo aCGH/ChiP-on-ChiP wash buffer 1 into the small slide holding glass chamber, label the chamber as #1.
4. Pour about 600 ml of Oligo aCGH/ChiP-on-ChiP wash buffer 1 in one of the glass chambers and label it as #2.
5. Heat up wash buffer 2 to 37 degrees Celsius, monitoring the temperature constantly with a thermometer.
6. Pour Oligo aCGH/ChiP-on-ChiP wash buffer 2 in another glass chamber, label it as #3 and continue monitoring the temperature.
7. Take out the hybridization chamber from the oven and disassemble the apparatus. Quickly transfer the microarray slide with gasket, only holding onto the Agilent barcode side into the slide holder labelled #1, containing Oligo aCGH/ChiP-on-ChiP wash buffer 1. Make sure it is completely submerged.
8. Carefully pry apart the gasket slide and the microarray slide from each other, using clean forceps and careful not to touch any of the glass part, only the barcode region.
9. Carefully transfer the microarray slide to the slide holder and submerge the slide holder in the #2 wash chamber containing Oligo aCGH/ChiP-on-ChiP buffer wash 1 and wash for 5 minutes.
10. Transfer the slide rack, allowing the droplets to come off to the second wash chamber labelled #3, containing Oligo aCGH/ChiP-on-ChiP wash buffer 2 at 37 degree and wash for 1 minute.
11. Slowly remove the rack taking about 5 to 10 seconds to remove from the wash chamber. Quickly put the slide, only holding the barcode region into the slide holder so that Agilent side faces up towards the slide cover and the Agilent label is closest to the hinge of where the cover closes. Do not touch the slide cover with your fingers. Hold the brown part of the slide holder and immediately read the slides.
12. Once in the microarray scanner, open the scanner using the program and slide in the slide holder. Close the door using the program. Once the barcode is read, locate where you want your data to be stored. You can create your own folder for this.
13. Let the instrument run the scan.
14. Come back after an hour and scanning should be completed by then.
15. Open the Feature Extraction program and open the tiff file that is formed to see the visual and check for any dried blotches.
16. Click the feature extraction button and the data will be extracted from the tiff image into the same folder.
17. Be sure to back up the data files in the server.

Once scanning is completed, ask the program to open the scanner, remove the slide holder from position, close the scanner and turn off the program and computer. Take the slide out from the slide holder and place the slide holder back in the appropriate box on top of Fang's bench. Clean the wash chambers and dump the buffers in the sink.