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MinION flow cell wash protocol

The Wash Kit provides a means of washing out and removing a library which has been loaded onto a flow cell. The flow cell can then be stored until a new library is run.

The washing procedure is a simple 2-step process and the kit contains buffers to remove the previous library and equilibrate for reuse or storage. There are sufficient reagents supplied for 12 washes.

Analysis of sequence information on Oxford Nanopore platforms occurs in real time, and there is no fixed run-time of devices. This allows users to run their experiments until enough data has been collected to fulfil the need of the experiment. The run can be stopped and the sample washed out using the Wash Kit. The washed flow cell can be stored until another sample needs to be run. This allows users to run libraries on demand, without the need to batch and barcode samples together. However, some contamination from the previous sample is observed after using the Wash Kit. Therefore, it is recommended that when running multiple samples sequentially, the samples are barcoded to allow filtering of sequences from the remnants of previously run samples.

The Flow Cell Wash Kit removes the majority of templates from the previous library, and cross-contamination is avoided by barcoding each library. Where barcoded libraries are sequentially run without washing in between flow cell loads, significant contamination is observed from the previously loaded sample (A). However, washing (and storing overnight, for example) the flow cell before loading the next sample shows that most of the previous sample has been removed (B).

Oxford Nanopore Technologies deem the useful life of the product to be 3 months from receipt by the customer.

The Nanopore Flow Cell Wash kit contains:

* Wash Buffer A (0.5 ml)
* Wash Buffer B (1 ml)
* Storage Buffer (1.6 ml)

\*this protocol is to be done immediately after sequencing\*

1. Vortex wash buffer A and storage buffer (S)
2. Remove the USB from the MinION device, but keep the flow cell in place
3. Open the **priming port**
4. Slowly remove all of the waste from the **waste port** and discard
5. Make up wash buffer solution **(20ul wash buffer A, 380 ul wash buffer B, mixed)**
6. Slowly add 400 µl **wash solution** into **priming port**
7. Incubate at room temperature for 10 minutes (ideally an hour)
8. Add 500 µl **storage buffer (S)** into the priming port
9. Store at 4-8°C
10. You must QC the flow cell before using again to ensure a suitable number of active pores