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< Flow Cell (R10.4.1)

FLO-MIN114

R10 is our nanopore chemistry designed to deliver highest consensus accuracy. Paired with the Kit 14 chemistry, R10.4.1 generates data at a modal accuracy above 99%.

Note: R10.4.1 flow cells currently require Kit 14 chemistry.

To order larger quantities of flow cells than those listed in the pack size selection below, please contact your Oxford Nanopore sales representative.

Product lead time: 1 week

Chemistry type:

Pack size:

€700.00

3 Released

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Information

A MinION Flow Cell (R10.4.1) is a consumable used with MinION and GridION devices. It contains the proprietary sensor array, Application-Specific Integrated Circuit (ASIC), and R10 nanopores. The R10 series of nanopores contains a double reader-head, and is suitable for experiments where high consensus accuracy is required. Paired with the Kit 14 chemistry, R10.4.1 generates data at a modal accuracy above 99%.

This release supports all our V14 kits recently released, including the Ligation Sequencing Kit V14, Rapid Sequencing Kit V14 and barcoding. A full compatibilities list is available below.

Note: All flow cells will be shipped with flow cell light shields.

How it works:

A user simply adds their prepared library to the flow cell, installs the flow cell light shield and starts their sequencing experiment.

Data is accumulated over time as DNA is sequenced by the nanopores. Individual read files are generated and are immediately available for analysis.

As data is streamed in real-time, a user can choose to stop a run as soon as sufficient data is gathered. A flow cell contains sufficient buffer to run for ~72 hours (under optimal conditions) and a user can choose to run continuously or run, stop, wash, and load a new sample until the buffer and nanopores are exhausted.

Shipping and logistics:

MinION and GridION Flow Cells are packed individually with a light shield; however, bulk order options are available. All orders can be split for delivery to best suit your needs.

Flow cells and kits are shipped together at 2–8°C. The packaging is designed to protect the flow cells from freezing. Flow cells are stable at ambient temperatures and stored refrigerated for longer periods. Sequencing kits are stable at room temperature for up to seven days, so users should not be concerned about their products should they arrive at ambient temperature.

Products are shipped to customers within the USA and EU Monday to Thursday. Shipments to Canada, Norway, Korea and Japan are expedited Monday to Wednesday; with Australia and New Zealand leaving our warehouses on a Friday. Shipments to the rest of the world are made on Mondays to allow the full working week for packages to arrive.

The delivery charges are calculated when a quote is raised or during checkout. Once an order is made, the delivery ID and delivery information can be tracked in the Store.

Storage and stability:

Flow cells should be stored at 2–8°C.

We recommend you check your flow cell before preparing your DNA/RNA library as part of the warranty process.

Flow cell returns:

The flow cell pouch provided serves as the flow cells returns packaging. Flow cells contain finite materials which, when returned to Oxford Nanopore, are responsibly recycled.

More information on how to carry out a return can be found on the [Nanopore Community](#).

Workflow

MinION and GridION Flow Cells are provided in a sealed pouch and are shipped at constant temperature.

Flow cells should be stored at 2–8°C.

Prior to use, the flow cell can be checked by performing a Flow Cell Check using MinKNOW (the MinION and GridION device software). The Flow Cell Check will report the number of nanopores available for sequencing.

Once the Flow Cell Check has been performed satisfactorily, the flow cell is ready to be used for experiments. The exact protocol and reagent kits used will depend on the experiment being run.

Please return your flow cells and light shields to Oxford Nanopore Technologies after use.

Safety and legal

[English Safety Data Sheet for MinION Flow Cell \(FLO-MIN114\)](#)

[Spanish Safety Data Sheet for MinION Flow Cell \(FLO-MIN114\)](#)

Customers are required to perform a flow cell check within 12 weeks of purchase. Oxford Nanopore Technologies will replace any flow cell with fewer than 800 nanopores, when the result is reported within two days of performing the flow cell check, and when the storage recommendations have been followed. The warranty on this product is 12 weeks from receipt by the customer.

There is a 9-month contract length available for all consumable purchases. For more information, please see the [Nanopore Product Terms and Conditions](#).

What's in the box

MinION Flow Cells are shipped in a sealed pouch with a light shield.



This packaging also serves as the flow cell returns kit. Users are requested to return their flow cells after use so that they can be responsibly recycled by Oxford Nanopore Technologies.

Multiplexing

Oxford Nanopore's barcoding kits are designed to allow pooling and running multiple libraries on Oxford Nanopore devices. There are three types of barcoding kits available for Kit 14:

Ligation-based PCR barcoding:

- PCR Barcoding Expansion 1-12 (EXP-PBC001)
- PCR Barcoding Expansion 1-96 (EXP-PBC096)

Rapid-based PCR barcoding:

- Rapid PCR Barcoding Kit 24 V14 (SQK-RPB114.24)
- 16S Barcoding Kit 24 V14 (SQK_16S114.24)

Rapid-based cDNA-PCR barcoding:

- cDNA-PCR Barcoding Kit V14 (SQK-PCB114.24)

Rapid chemistry-based barcoding (PCR-free):

- Rapid Barcoding 24 V14 (SQK-RBK114.24)
- Rapid Barcoding 96 V14 (SQK-RBK114.96)

Ligation-based barcoding (PCR-free):

- Native Barcoding Kit 24 V14 (SQK-NBD114.24)
- Native Barcoding Kit 96 V14 (SQK-NBD114.96)

The Flow Cell Wash Kit (EXP-WSH004) allows sequential runs of multiple sequencing libraries in the same flow cell. It works by washing out the first library, and refreshing the system ready for a subsequent library to be loaded. This procedure provides the opportunity to utilise the same flow cell a number of times, maximising the available run time particularly for cases where less data per library is required. Following the wash step, Storage Buffer is introduced into the flow cell, allowing storage of the flow cell before subsequent library addition.

Compatibility

Kits

- Ligation Sequencing Kit V14 (SQK-LSK114)
- Ligation Sequencing Kit XL V14 (SQK-LSK114-XL)
- Rapid Sequencing Kit V14 (SQK-RAD114)
- Rapid Barcoding Kit 24 V14 (SQK-RBK114.24)
- Rapid Barcoding Kit 96 V14 (SQK-RBK114.96)
- Native Barcoding Kit 24 V14 (SQK-NBD114.24)
- Native Barcoding Kit 96 V14 (SQK-NBD114.96)
- Ultra-Long Sequencing Kit V14 (SQK-ULK114)
- PCR Expansion (EXP-PCA001)
- PCR Barcoding Expansion 1-12 (EXP-PBC001)
- PCR Barcoding Expansion 1-96 (EXP-PBC096)
- Rapid PCR Barcoding Kit 24 V14 (SQK-RPB114.24)
- cDNA-PCR Sequencing Kit V14 (SQK-PCS114)

- cDNA-PCR Barcoding Kit V14 (SQK-PCB114.24)
- 16S Barcoding Kit 24 V14 (SQK-16S114.24)

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