क्षेत्रीय जैवप्रौद्योगिकी केन्द्र

Regional Centre for Biotechnology

राष्ट्रीय महत्ता की संस्था

An institution of National Importance

(यूनेस्को के तत्वावधान में जैव प्रौद्योगिकी विभाग, भारत सरकार द्वारा स्थापित)

(Established by the Dept of Biotechnology, Govt of India under the auspices of UNESCO)

No. RCB/PAC/NOC/02/20-21 Dated: 06.07.2020

Invitation of Comments/Objections for Purchase of Minion Enhanced Minion Sequencing Device.

Regional Centre for Biotechnology is in the process of purchasing of Minion Enhanced Minion Sequencing Device from M/s Thermo Fisher Scientific, USA based on Proprietary basis.

The documents are being uploaded for open information to submit comments/objections, if any, from any manufacture regarding proprietary nature of the item. The offer should be submitted in accordance with the specifications as attached herewith. The comments may be emailed to purchase@rcb.res.in or submitted by speed post courier to the under mentioned address on or before **13.07.2020** failing which it will be presumed that any other vendor has nothing to comment upon this notice and the product will be purchased on Proprietary basis.

Comments/Objection may be submitted to:

The Executive Director
Regional Center for Biotechnology
NCR Biotech Science Cluster
3rd Mile Stone, Gurugram-Faridabad Expressway
Faridabad, Haryana-121001

Registrar

Specification

	MinION
Read length	
Yield per flow cell, DNA/cDNA (yields are also dependent on chosen sample and preparation methods. BIF-best in field)	50 Gb
Number of flow cells per device	1
Yield per device (yields are also dependent on chosen sample and preparation method). Up to:	50 Gb
Suitable applications include	Whole genomes/exomes Metagenomics Targeted sequencing Whole transcriptome (cDNA) Smaller transcriptomes (direct RNA) Multiplexing for smaller samples
Number of channels per flow cell	512
Number of flow cells per device	1
Run time	1 min - 48 hours
DNA sequencing yield per flow cell (typical in field - best in field (BIF). Yields are also dependent on chosen sample and preparation methods)	15 - 30 Gb
DNA sequencing yield per device (typical in field - best in field)	15 - 30 Gb
Starting Material	DNA, amplicons, cDNA, Direct RNA
Sample input per library	Protocols from 10 pg - 1 ug
Sample Preparation time	Rapid Kit: 10 minutes, Ligation Kit: 60 minutes, other protocols and timings also available
Multiplex options	Rapid Barcodes: 1 - 12 Native Barcodes: 1 - 24 PCR Barcodes 1 - 96 Combinatorial Barcodes > 2K combinations possible
Power requirement	Powered by Laptop / MinIT

Dimensions	W 105, H 23, D 33 mm
Weight	87 g
Read length	Nanopores read the entire length of the fragment of DNA/RNA presented to them. Longest read so far: > 2Mb. Accuracy is maintained throughout the fragment.
Single Molecule Accuracy	R9: Modal 95% Accuracy. R10: Modal 94% Accuracy.
Consensus Accuracy	R9.4.1: Current best Q44 (>99.99%) R10: Current Best Q50 (99.999%)
Sample Preparation time	Rapid Kit: 10 minutes, Ligation Kit: 60 minutes, other protocols and timings also available
Modified base detection	Yes - Base modification information available in raw signal and users can access information with additional analysis tools
Time to 1st usable data	2 minutes
Analysis tools	Community developed, Tutorials, EPI2ME. More information
Small whole genome Sequencing	Yes: Low to medium plex
Targeted Sequencing	Yes: Medium to high plex
Metagenomics	Yes: Quantitative species ID
RNA Sequencing	Yes: Isoform & expression from same experiment
Epigenetics	Yes