

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)

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**Purchase of Tapestation System on PAC basis**

We are in the process of purchase of **Tapestation System** from M/s Agilent Technologies, Germany on Proprietary basis.

Any observations regarding the same may be emailed to [purchase@rcb.res.in](mailto:purchase@rcb.res.in) or submitted by speed post/courier to the under mentioned address on or before **10.12.2021:**

Purchase Division  
Regional Center for Biotechnology  
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Faridabad, Haryana-121001

**Controller of Administration**

## Technical Specification of TapeStation System

1. The system should be high throughput for analyzing at least 16 samples in a single run.
2. Instrument must offer dedicated kit for analysis of genomic DNA samples.
3. System must offer individual tips for sample loading to avoid any contamination issues.
4. The Genomic DNA Kit must offer sizing range from 200 to >40,000 bp with sensitivity of 0.5ng/ $\mu$ L.
5. The system must not use any external/internal Nitrogen cylinder for running the Instrument.
6. The kits required for the system must not use any mineral oil for preventing sample evaporation.
7. The system must offer scalable throughput to analyze samples depending on requirement. The chips must be reusable.
8. The system must be able to accommodate 16 well strips as well as tube.
9. The system must not use any fragile capillaries for electrophoresis. Instead rugged chips / tapes / plates must be used.
10. The system must offer flexibility to analyze DNA and RNA Samples. The kits for DNA & RNA must be sensitive enough to detect pg/ $\mu$ L concentration. Details of the kits must be provided.
11. The RNA kit should provide sizing range from 100-6000 nt.
12. The system should have an integrated bar code scanner.
13. The system must offer adequate protection from sample evaporation.
14. The system must offer dedicated kit for High Sensitivity DNA for NGS workflow. The kit must offer sizing in the range of 35 – 1000 bp and sensitivity of 5 pg /  $\mu$ L.
15. The instrument software must automatically represent analyzed data as gel image / electrophrogram for each sample in a tabular format.
16. The system must be able to accommodate sample volume of 2 – 5  $\mu$ L of precious sample for all applications including High Sensitivity Analysis.
17. The system must offer kits and solutions for High Sensitivity DA, Genomic DNA, RNA Pico / Nano.
18. The instrument software must offer feature for calculating the stability of RNA.
19. The instrument must be provided with suitable Laptop and System software at no extra cost.
20. The instrument must be offered with kits of pack sizes of 100 – 150 reactions or less to avoid reagent wastage and kit expiry.
21. Warranty: minimum 5 Years, after warranty AMC for 5 years.



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### Proprietary Certificate

The following features ensure the Agilent 4150 TapeStation instrument (model number G2992A) sold under system part number G2992AA is a proprietary item manufactured by Agilent Technologies:

- The 4150 TapeStation system uses proprietary ScreenTape technology for the analysis of biological samples.
- The ScreenTape technology offers flexible sample throughput at constant cost per sample. Any sample number between 1 and 16 can be analyzed in a single instrument run.
- The 4150 TapeStation system enables integrated separation, quantification and integrity assessment of DNA with sensitivity as low as 5 pg/ $\mu$ l.
- Unique RNA Integrity number equivalent (RIN<sup>e</sup>) algorithm is included for unbiased total RNA integrity assessment.
- Unique DNA Integrity number (DIN) algorithm is included for unbiased genomic DNA integrity assessment.
- Agilent offers dedicated kits (ScreenTape devices and reagents) for highly sensitive quality control of DNA and RNA samples; for example, for NGS library preparation.
- The TapeStation analysis software offers a color-coded result flagging tool for RIN<sup>e</sup>, DIN and %cfDNA analysis and easy to use automated data evaluation.
- The TapeStation analysis software allows quick comparison of samples with a sample overlay feature. Sample overlay can be done for samples from various ScreenTape devices and various runs in one window.
- The TapeStation analysis software offers customizable and compact report functions (.pdf & .doc) and data export (.csv & .xml) for seamless data integration into LIMS.

Agilent Technologies is the sole manufacturer of the 4150 TapeStation instrument and this product is not manufactured by any other company in India or abroad.

Rainer Nitsche, PhD  
Product Manager  
Biomolecular Systems and Solutions  
Agilent Technologies