Department of Genetics
University of Delhi South Campus
New Delhi - 110021

Specification of Automated Analyzer for quality control (QC) of DNA and RNA samples (Tape station along with kit)

Ref. no. UDSC/Genetics/AD/Tape Station/F/2024-25 **Dated 28.03.2025**

Quotations are invited through GeM/CPP portal (e-procurement) under 2-bid system for Automated Analyzer for quality control (QC) of DNA and RNA samples (Tape station along with kit) with FOR destination price to be quoted in INR for University of Delhi, South Campus. The quote should be inclusive of all taxes and duties for supplying and installation of the item as described below.

1	**The Instrument should be used for analysis of Sample size, Quantity, Molarity and Integrity.** **Instrument should be used for below QC applications.** QC of genomic DNA (gDNA) including DNA Integrity Number QC of cell-free DNA with percent of cfDNA purity NGS library QC Analysis of amplified libraries. PCR and multiplex PCR fragment analysis QC of quantitative PCR products. Quality and quantity of total RNA samples from eukaryote or prokaryote origin
2	QC Analyzer instrument should analyze any sample number upto 96 samples at constant cost per sample.
3	Instrument should be capable to run following application Kits. DNA Kit (Sensitivity of 0.1 ng/µL) High Sensitivity DNA Kit (Sensitivity of 5 pg/µL RNA Kit (Sensitivity of 5 ng/µL) High Sensitivity RNA Kit (Sensitivity of 100 pg/µL Genomic DNA Kit (200 to > 55,000 bp & Sensitivity of 0.5 ng/µL) Cell Free Kit (50 to 750 bp & Sensitivity of 20 pg/µL)
4	An automated system from sample/reagent loading, processing to analysis with zero cross contamination.
5	No manual Gel dye mix steps for sample preparation should be required. Instrument should have automated loading and walk away operation.

6	The instrument should have pre-casted agarose gel devices ready to use for different sample types.
7	The system must be able to accommodate maximum sample volume of 1-2 µL of precious sample for all applications including High Sensitivity Analysis.
8	The system should be supported with optimized and validated kit for Genomic DNA and Cell-free DNA.
9	The instrument should be based on traditional electrophoresis and Should not be on capillary based system requiring 1min/sample for analysis.
10	The system should support DIN and RIN algorithm to measure the quality of the DNA and RNA.
11	The instrument software must offer feature for calculating the stability of RNA and DNA.
12	System must offer individual tips for sample loading to avoid any contamination issues.
13	The system must not use any fragile capillaries for electrophoresis. Instead, rugged chips /tapes / plates and tubes must be used.
14	The system should have integrated QR code scanner.
15	The system must not depend on use of any external/internal gas cylinder / vacuum pump for running the Instrument.
16	The Kits required for the system must not use any mineral oil for preventing sample evaporation
17	The Instrument must be offered with kits of pack sizes of 100- 150 reactions or less to avoid reagent wastage and kit expiry.
18	The instrument should be recommended by the sequencer OEM in their protocol as a necessary step for sample QC.
19	The instrument should have minimum 50 reference installation in NGS QC Labs user list to be provided.
20	performance certificates from 10 users to be attached to ensure performance.
21	Reference should be provided from OEM of NGS instruments as the validation system for DNA and Library QC.
22	Onsite demo of the machine should be provided for the technical evaluation and also has to perform NGS library qc, all samples and reagents for demo has to be arranged by bidder.
23	warranty 3 years
24	Desktop with i5 processor and UPS.
25	Starter kit required for HS DNA, and RNA with two quantity each should be provided along with the instrument.
26	Instrument should Enables estimation of DV200 (evaluates the percentage of fragments of >200 nucleotides), to address the unique QC challenges of FFPE RNA, a tool to reliably classify degraded and low-address the unique QC challenges of FFPE RNA, a tool to reliably classify degraded and low-quality RNA by size and effectively parse samples suitable for NGS from unsuitable samples.

General Instructions

1. Premium branded instrument should be provided to ensure the high quality and reliability of experimental outcomes.
2. Details on website & product literature justifying the technical specifications must be provided. The vendor must provide appropriate link/ website detail to verify the technical specifications mentioned in the provided product broacher.
3. The system should come along with 3 years comprehensive for all items warranty. Should be supported with remote services, cloud connectivity online monitoring, and external barcode using USB, etc.
4. The supplier should have service center in Delhi/NCR for quick service within 48 to 72 hours
5. Firm MUST provide a compliance statement vis-à-vis specifications in a "tabular form" clearly stating the compliance and giving justification, if any supported by technical literature with clear reference of page number, paragraph, or lines. This statement must be signed, with the company seal, by the Tendered for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the Tender.

Important information

1. The quotation should be addressed to the "Professor Amit Dutt, Department of Genetics, University of Delhi South Campus, New Delhi-110021". The quote should be submitted with all terms and conditions and necessary documents latest by end of tender date.
2. Quotations must be submitted in a two-bid-system. The first part, technical bid, should consist of all technical details and supporting documents with terms and conditions. The compliance sheet must be filled by the vender.
3. The second part, financial bid, should contain item-wise pricing of items mentioned in the technical bid. Both the quotation documents/ bids are to be submitted through GeM/CPP portal of the Government of India only (e-procurement). Hard copies of bid will not be accepted.
4. The successful bidder must provide a performance bank guarantee (PBG) as per rule 171 GFR 2017 totaling 3% of the value of the main machine quote with a validity of 60 days upon completion of the warranty period. The PBG should be in favor of **"The Director, University of Delhi South Campus, New Delhi-110021"**. PBG must be provided at the time of Installation to avoid delay in payment release.
5. The bidder will have to quote all items together. Partial quotes will not be accepted. For each item, the make, model and technical specifications and quantity must be mentioned clearly. Original brochure must be provided.

6. The purchase committee reserve the right to request the participating vender for demonstration of the all the quoted technical specification/ capabilities of the offered model preferably at University of Delhi South Campus, New Delhi-21, or within the Delhi state. The purchase committee reserves the right to disqualify a participating vender if they fail to demonstrate the quoted technical specification and/or capability of the offered equipment/ model.
7. The quote should be valid for 90 days from the last date of submission of bid.

Professor Amit Dutt
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