CENTRE FOR RURAL DEVELOPMENT AND TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY-DELHI
HAUZ KHAS, NEW DELHI-110 016

Dated: 01.02.2013

Notice Inviting Quotations

Quotations are invited for a "**Real TimePCR machine"** with the following specifications. Technical and financial bids are to be submitted in separate sealed envelopes and placed together in a sealed cover, superscribed**"Quotations for Real Time PCR".** The quotations should be submitted to **"Prof. Satyawati Sharma, Block III, Room 289, Centre for Rural Development and Technology, IIT Delhi, New Delhi 110016"** on or before 15.02.2013.

REAL TIME PCR SYSTEM SPECIFICATIONS

The system should be an automated integrated system for both real-time PCR and post-PCR (end-point) analysis with following features:

Hardware:

1. The system should be 96-well Peltier based PCR machine with Open platform that provides flexibility with chemistries, reagents and plastic ware.
2. The normalization of reaction due to non-PCR related fluctuations should be possible by using any calibrated dye.
3. The excitation source should be LED/Laser and the detection system should be photodiode/PMT.
4. The hardware must provide Peltier thermal cycling for Fast-PCR (40 cycles in less than 40 minutes) as well as Standard-PCR run in the same block.
5. The system should have temperature range of $4\ ^{o}C$-$100^{o}C$ to facilitate incubation of samples at low temperature.
6. The system should have peak block ramp rate for heating as well as cooling exceeding $4.0^{o}C$/second or more.
7. Temperature Accuracy: +/-0.25°C (35°C to 95°C)
8. System should support minimum reaction volume of 10 µL and thermal cycling conditions to eliminate optimization of PCR conditions for running the templates from different sources simultaneously.
9. The system should have flexibility to run different samples with user defined specific annealing temperature in a single run.

10. The system should have preferably Touch Screen LCD feature to avoid dependency on computer for operation. However, the system should come along with branded laptop for data analysis.

Software :

11. Dedicated licensed full version software for primer and probe design must be included in the supply.
12. The system should come along with licensed High Resolution Melting Curve Analysis software.
13. The instrument should have software that can analyze multiple perspectives in the Multiple Plots view, with side by side views of all data aspects including the amplification plots, standard curve, multi-component data plots, and raw data.
14. Software given should be RMDL compliant and should be capable of import and analyzing data from any real time PCR platform.
15. The system should along with software to support applications including absolute quantitation, Relative quantitation, multiplex-PCR, allelic discrimination (SNP), melt curve analysis with melt curve resolution of $0.1^{o}C$ as well as pathogen detection and plus/minus assay using internal positive control.

Supporting Chemistries and Applications:

16. The system should be completely open system to support all the Real Time PCR chemistry like TaqMan, SYBR Green, ROX, HybProbe, Molecular Beacons etc.
17. The system should be able to detect more than 6 colors and should be capable of doing multiplexing formore than threecolor.
18. The system should support applications including absolute quantitation, Relative quantitation, multiplex-PCR, allelic discrimination (SNP), melt curve analysis, High resolution melt(HRM) analysisas well as pathogen detection and plus/minus assay using internal positive control.
19. The system should be open system with flexibility to use micro well plates, individual tubes and 8-tube strips.
20. The instrument should have 9 logs of linear dynamic range.
21. System should be standardized for Taqman and SYBR Green Chemistry with pre-validated and functionally tested Taqman Assays for different applications like Gene Expression,SNP Genotyping,MicroRNA Expression,Viral Load analysis, Gene detection and Translocation Analysis. They should be readily available from the vendor.

Terms & Conditions:

22. Technical and financial bids should be provided in separate envelope.
23. The instrument should come along with five years of warranty.

24. Terms of payment: 100% payment within 30 days after receipt of goods in sound condition by means of Letter of Credit. IIT Delhi isexempted from paying excise duty/custom duty.
25. Validity of quotation: Quotation will be considered valid for three months from the date of receipt unless otherwise stated.
26. The quoted system must have full license for PCR process. A copy of the license may be attached to the offer.
27. Wet lab training for one person from the user lab at the supplier firm should be provided. The onsite instrument demonstration and operational training should be provided.
28. 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
29. Application Support: The vendor supplying the instrument should have own application support laboratory in India, preferably in Delhi / NCR for local & efficient after sales service-support.
30. 20plates (each with 96-well) with covers and SyBr green master mix for 2000 reactions.