

**Tender Enquiry for Real Time PCR System and Semidry Transfer System**

E-tender is invited from companies for supply & installation of i) a Real Time PCR System and ii) a Semidry Transfer System with the requisite accessories needed for the effective functioning of the equipment as per specifications below. Quotations can be submitted on Govt. of India eProcurement website (<https://eprocure.gov.in/eprocure>).

**i) Real Time PCR System**

**Mandatory technical 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 block system with Peltier based heating & cooling or better
2. The excitation source should be LED/Laser and data acquisition should be simultaneous and scan-free/individual well screening for whole plate acquisition
3. The system should have four filters or more and come along with fixed (scanning-free) optics, ensuring robust data or better
4. The system should have temperature range of 37°C-98°C to facilitate all qPCR applications or better
5. The system should have peak block ramp rate exceeding 6°C/second or better
6. The system should be able to run minimum three samples with different annealing temperature for running multiple experiments or have gradient features
7. System should support a minimum reaction volume of 10-100 µL in 0.2ml block
8. The system should be a standalone system i.e. it should have advanced interactive Touch Screen feature to avoid dependency on computer for operation. System should preferably have four or more colour multiplexing capability
9. Fast-PCR in less than 35 minutes should be an integral feature of the system or better
10. Annual or periodic calibration should not be a necessity preferably
11. A compatible computer should be provided.

**Software:**

1. The instrument should have windows-based 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, multicomponent data plots, and raw data. The system should give heat map of the amplification and analyzed data. Software should have PCR efficiency factor correction for gene quantification
2. The system should have software to support applications including absolute quantitation, relative quantitation, multiplex-PCR, allelic discrimination (SNP), melt

curve analysis as well as pathogen detection, protein thermal shift for protein melt curve analysis, plus/minus assay using internal positive control & High-Resolution Melting analysis for gene & mutation screening

**Supporting Chemistries and Applications:**

1. The system should be completely open system to support all the Real Time PCR chemistry like TaqMan, SYBR Green, Simple & Hydrolysis Probes, and Molecular Beacons etc.
2. The system should be capable of detecting even 1 copy in a single reaction tube without passive reference dye. However, normalization of reaction due to non-PCR related fluctuations should be possible by using any calibrated dye
3. The system should be open system with flexibility to use micro well plates, individual tubes and 8-tube strips
4. System should detect differences in target quantity as small as 1.5-fold in single plex reactions, and should have 10 logs of linear dynamic range

**ii) Semidry Transfer System**

**Mandatory technical specifications:**

1. System should be convenient – for simultaneous transfer of up to two mini sized gels or one midi sized gels and designed for rapid semi-dry transfer of proteins from polyacrylamide gels to nitrocellulose or PVDF membranes in 5-10 minutes or better
2. Should have integrated power supply with blotting Software and the blot Cassette (for blotting)
3. Pre-programmed methods for Low MW, Mixed Range MW, High MW, Standard Semi Dry, 1.5 mm gels or gels of unknown thickness
4. USB port should be there for program transfer
5. Easy touch programming or keypad programming for access to pre-programmed transfer methods based on the gel
6. Number, gel size and molecular weight range of proteins using colour LCD menu touch screen and also to easily create, run and save custom transfer methods
7. Should be European CE Declaration of conformity / USA FDA Certified
8. Should be able to store 20 or more programmable methods
9. Should be an open system which accepts accessories and consumables from different suppliers including transfer buffer
10. Instruction manual and all other accessories should be provided in the toolkit
11. Demonstration of the equipment by technically qualified prospective supplier(s) is mandatory

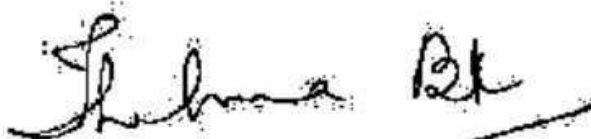
**Other Specifications – Common to both items i and ii.**

1. Warranty / Guarantee: Bid must be quoted with three years comprehensive on-site warranty including all components, accessories and annual

maintenance. Warranty for extended period (beyond standard warranty of the respective companies) should be mentioned separately in the bid. It will be effective from the date of the satisfactory installation / commissioning of goods. The warranty would also be valid for any manufacturing defects, workmanship and poor quality of the components.

2. **Delivery & Installation:** All the goods ordered shall be door delivered & installed within five weeks from the date of issuing purchase order. All the aspects of safe delivery, installation (calibration) and commissioning shall be the exclusive responsibility of the supplier. If the supplier fails to deliver, install and commission the goods on or before the stipulated date, a penalty at the rate of 5% per week of the total order value will be levied.
3. Should be provided with 2 KVA UPS with 30mins backup.
4. Company must have NABL Accredited lab in Delhi NCR with full license for PCR process or have a demo centre in NCR.
5. Company MUST provide a compliance statement vis-a-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.
6. 90 % payment will be made after delivery and installation and 10% after submission of bank guarantee for warranty period. 10% of the total bid amount should be provided as bank guarantee for warranty period and the same will be returned after the warranty period.
7. In need of any repair/replacement of the instrument after registering the complaint engineer should visit the lab within 24 hours, repair should be done in 48 hours and any replacement should be done within seven working days. If not done, 1% of the bank guarantee will be deducted on per day basis.
8. Item quoted should be complete in all respects; any additional accessories required for instrument to operate /function should also be quoted as part of the instrument and should be supplied along with instrument. It should not be included in optional.
9. Any deviation from the mandatory technical specifications and all other conditions proposed by the bidder should be clearly mentioned/highlighted in the first page of the tender. If deviations are not provided, the bid will be automatically considered as not complying with all the requirements and specifications mentioned in the tender.
10. Original manufacturer's product catalogue and specification sheet in English should be attached.
11. Comprehensive training for lab staff and support services till familiarity with the system is developed should be provided. Subsequently, assistance as and when required should be provided. The institute will not bear any training expenditure.
12. Bidder shall upload the tender document and addenda there to, if any, with each page of this document signed and stamped to confirm the acceptance of the entire terms & conditions as mentioned in the tender enquiry document.

13. Vendor should have minimum of 30 installations of quoted model/similar models in India in the last three financial years and should provide performance certificate from a minimum of ten users who have the model quoted here or similar model installed atleast two years prior to the certification. User list of same/different models of the instrument installed in the country with complete contract information should be attached in the bid.



B.K. THELMA, Ph.D.

Professor

Department of Genetics

University of Delhi, South Campus

New Delhi-110021