

Tender Specifications

Real Time Polymerase Chain Reaction (RT-PCR) Detection System

- The system should be compact, high through put of upto 96 or more samples and fast on-line Real-Time PCR system with latest generation, cooling and heating system. The system should support applications like Gene expression, Absolute and Relative Quantification, copy number discrimination in transgenic, multiplexing and complete end-point analysis.
- It should have uniform temperature distribution with minimum equilibrium time.
- System should have dynamic range of 10 orders of magnitude and should have a fast ramping rate of 5⁰C and above.
- System should be able to detect minimum 2 different fluorescent reporters in the same tube without the need of addition of any internal reference dye.
- System should contain LED as excitation source and photodiode/CMOS/PMT as detectors.
- The excitation source should be two or more different LED and detection by Photodiodes/Photomultiplier tube.
- It should be an open system and should not require use of reference dye like ROX.
- IT should support reaction volume in the range of 1-50ul and avoid additional centrifugation step before starting the run.
- System should be compatible with hot start enzymes and capable of detecting fluorescent dyes FAM/Sybr Green, and VIC, HEX, TET, CAL Fluor Gold 540 etc.

Should have a full gradient feature in 8 rows and up to 24 gradient settings to optimize RTPCR protocol.

- Temperature range 0–100⁰C with accuracy of ±0.2 ⁰C and uniformity of ±0.4 ⁰C within 10 sec of arrival at 90⁰C
- System should provide Real Time cycle by cycle monitoring with continuous display of readings for Fluorescence, Temperature changes and Progression of amplification.
- System should work on PCR tubes/plates and not in capillary.
- It should be capable of generating new channel for detection
- The real-time system should be compatible with all kind of plastic consumables and reagents and capable of running various chemistries like Taq Man, SYBR green etc.
- The system should be certified by European CE certifications and MIQE guideline compliant.
- The equipment should be accompanied with PC- Branded I-7 & I-5 Desktop (16GB RAM, 1TB HDD), for data acquisition and data analysis, 2KVA online UPS backup with at least half an hour back up and HP color LaserJet Printer M154a or better.
- System should be supplied with 2000 RXN Real Time PCR consumables (Syber green and Plates with seal) and cDNA synthesis kit for 100rxn.
- The vendor must document the compliance of detailed specifications in their quotations clearly highlighting the specifications in their original brochures/catalogues.
- Installation will be done by the supplies without levying any extra charges.
- Warranty: Minimum 1 year, preferably 3year comprehensive warranty

