



पादप कार्यिकी संभाग  
DIVISION OF PLANT PHYSIOLOGY  
भा.कृ.अ.प.—भारतीय कृषि अनुसंधान संस्थान  
ICAR-Indian Agricultural Research Institute  
नई दिल्ली—110012 (भारत)  
NEW DELHI - 110 012 (INDIA)



फाईल सं०: 51-7 / RTPCR / GET / 12-197-B

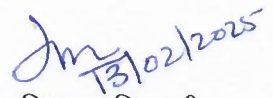
दिनांक: 13 / 02 / 2025

**GeM के माध्यम से ई-खरीद हेतु सूचना**  
**NOTICE FOR E-PROCUREMENT THROUGH GeM**

Online GeM e- bid are invited from reputed Manufacturere/Supplier/Authorized dealer in two bid system (Technical and Financial) for purchase of scientific equipment **Real Time PCR** on behalf of Director, ICAR-Indian Agricultural Research Institute, New Delhi. Please visit [www.iari.res.in](http://www.iari.res.in) for details Rules and Regulation and log in [www.gem.gov.in](http://www.gem.gov.in) for online e-bidding.

जैम बिड का विवरण निम्नलिखित है / Details of Gem Bid are as follows:

जैम बिड संख्या / GeM Bid No.	GEM/2025/B/5947584
बिड जमा करवाने की तिथि एवं समय / Bid Submission start date and time	13-02-2025
बिड बंद होने की तिथि एवं समय / Last Date & Time for submission of bid	07-03-2025 16.00
बिड खुलने की तिथि एवं समय / Date & Time for opening of Technical Bid	07-03-2025 16.30

  
13/02/2025  
प्रशासनिक अधिकारी  
Admn.Officer

REQUISITION OF THE PURCHASE OF STORES

Real Time PCR

**Technical Specifications:**

1. Real time PCR instrument should be standalone operation with integrated laptop or controlled by external computer work station
2. Real Time PCR system should be 96-well/ 384 well Peltier based PCR Machine
3. Sample size should be in the range of 10-30  $\mu$ l or better for 96 well
4. The system should support gradient reaction with uniform hold times across multiple temperatures or a superior technology.
5. Peltier-driven thermal cycler with maximum ramping speed of 5°C/sec, with an average ramp rate of 3.3°C/sec or better.
6. Should have a thermal block operational range of 4–100°C or better. Sample block temperature accuracy is  $\pm$  0.2°C or better, with a uniformity of  $\pm$  0.3°C well-to-well or better.
7. Optical system allows excitation and detection of atleast five fluorescent dyes or more in a single reaction well.
8. Excitation source: LED for each channel
9. Excitation spectral should be in the range of 450–600 nm or better for 96 well.
10. Fluorescence/ FRET channel available
11. The real-time system should be capable of running various chemistries like FAM/SYBR Green, VIC/JOE/HEX/TET/NED/TAMR/ABY/CY3/CY5 and ROX/Texas Red.
12. The system should resume and complete runs despite software interruptions, preventing data loss.
13. The system should support Wi-Fi or Ethernet connectivity to network storage (cloud) with user-authenticated read/write access.
14. Multiplexing for at least five or more colour per tube
15. The instrument software must support diverse optimized analyses, including absolute and relative quantification, PCR efficiency analysis, gene expression, allelic discrimination with HRM, and SNP genotyping etc.
16. System should have a port for USB drive for uploading and downloading data and programs and also have provision of LAN connection.

**Additional Requirements**

17. System should be quoted with free calibration for minimum seven years including cost of consumables if any required for calibration.
18. The equipment should be accompanied with a Branded I-3 laptop/ i7 computer & 2 KVA online UPS with 60 min backup for better performance of the instrument.
19. The vendor must document the compliance of detailed specifications in their quotations clearly highlighting the specifications in their original brochures/catalogues.
20. Provide list of customers with contact details & email address and performance certificates. The equipment may be considered after getting satisfactory report from them.
21. Warranty should be Minimum 2 years.