

Dr Praveen Mamidala
M.Sc., M.Tech., Ph.D. PGDPL
Associate Professor & Head
Department of Biotechnology
University College of Arts & Science
Telangana University



(Accredited by NAAC with 'B' Grade)

Principal Investigator
DST SERB (Project File-EEQ/2016/000710)
"Antennal Transcriptome and differential expression
of odor processing genes of the invasive insect pest
Red Palm Weevil (*R. ferrugineus*)"
Mobile: +91-9177685454
Email: pmamidala@gmail.com

Lr.3.1/DBT/TU/DST/SERB/EEQ/2016/000710

6th March, 2017

Sub: Sealed Quotations are invited to supply Equipments – 1 (ONE) Bio-Rad Real Time PCR Model CFX Touch 96 well for DST-SERB/EEQ/2016/000710), Dr Praveen Mamidala, Principal Investigator, Associate Professor, Department of Biotechnology, University College of Science, Telangana University, Nizamabad – Reg.

As per the subject cited, sealed quotations are invited from the reputed firms to supply of Equipments (**one (1) Bio-Rad Real Time PCR Model CFX Touch 96 well system**) for DST-SERB/EEQ/2016/000710 research project, Department of Biotechnology, University College of Science, Telangana University on or before 21-03-2017 by 4.00 pm. Please write on sealed cover as quotations for Equipments (**one (1) Bio-Rad Real Time PCR Model CFX Touch 96 well system**) for DST-SERB/EEQ/2016/000710 research project and submit the sealed quotations to **Dr. Praveen Mamidala, Associate Professor, Department of Biotechnology, University College of Science, Telangana University, Dichpally, Nizamabad-503322.**

(Dr. Praveen Mamidala)

Specifications For Real Time PCR

- Real time PCR with block of 96 x 0.2 ml tubes or plate to run typical 0.2ml tubes, strips, and plates.
- Should be an open system for plastic consumables and reagents.
- The base thermal cycler should be able to be used for standard PCR
- Should have gradient function in real time to support optimization
- System should be capable of doing 5 color true multiplexing
- Six excitation and six emission channels and each filter should correspond to one dye that ensures smooth differentiation of even dyes having high degree of spectral overlap.
- Should be capable of Detecting Cy5, FAM/SyBr Green, VIC/JOE, TAMRA/Cy3, Texas Red, Quasar705 and other commercially available universal dyes
- Maximum Ramping speed not less than 5 °C per sec
- Peltier Cooling & Heating for uniform temp control
- Channel dedicated for FRET experiments is preferred
- Excitation –Emission range: 460- 720nm
- System should have LED as an excitation source and Photodiodes for detection.
- Should have dynamic range of 9 orders or above.
- Open system capable of running various chemistries, reagents and plastic ware so that different chemistries using TaqMan, Molecular Beacon, SYBR green etc all can be performed.
- Temperature range 0– 100 °C with accuracy of ± 0.2 °C and uniformity of ± 0.4 °C within 10 sec of arrival at 90 °C
- System should have the working volume of 10 μ l-50 μ l
- System must be capable to detect ≤ 10 fmol of fluorescein or even less
- Should have multiple scan modes with a FAST scan option for reading all wells in 3 seconds
- Automatic allelic discrimination by end point fluorescence or threshold cycle.
- Gene expression analysis by relative quantity (ΔC_t) or normalized expression ($\Delta\Delta C_t$).
- End point analysis for upto 5 fluorophores
- Should have mode for Melt curve analysis
- Comparison of up to 5000 C_t values from different data files should be possible
- Software should have express load feature which allows entry of data after experiment.
- Real time PCR should be licensed for Research applications and license copy must be provided.
- Touch screen operation with stylus is more preferred for ease of use