



**CSIR- CENTRAL FOOD TECHNOLOGICAL RESEARCH INSTITUTE
MYSORE-570 020, INDIA**

(Constituent Laboratory of CSIR, New Delhi (Ministry of Science & Technology)
An ISO 9001:2008, ISO 14001:2004 & ISO 17025:2005, NABL Accredited Laboratory



Invitation For Bids.

Tender No. CFTRI/52284/2019 Date: 03/Feb/2020

Multimode Microplate Reader with Cell Imaging Facility

etender: For submitting tenders, login to <https://etenders.gov.in/eprocure/app>

LAST DATE:

- 1) TENDER SUBMISSION: AT 18.00 HRS (IST) ON 15-Feb-2020
- 2) TENDER OPENING (Technical Bids only): AT 12.00 HRS (IST) ON 17-Feb-2020

Contact Details:
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INSTRUCTIONS TO BIDDERS

1. The Instructions, Terms & Conditions, General Conditions of Contract (GCC), Special Conditions of Contract (SCC), Annexures and Formats hosted in our website www.cftri.res.in [Path: Home page → Tenders → Standard Tender Document (Scrolling Text)] constitutes integral part of this tender.
2. **BOQ (Bill of Quantity)** - Bidders should submit their financial bid in the format provided and no other format is acceptable. BOQ has been given as a standard format along with the tender document. It is mandatory for all the bidders to upload duly filled BOQ (in MS Excel Format) towards submission of their Financial Bid. No changes or modification to the given format is acceptable. Bidders are required to go through the instructions carefully before filling BOQ.
3. **Bid Security (EMD)** – INR 1,20,000/- [Rs. One Lakh Twenty Thousand Only] OR Bid Securing Declaration in lieu of EMD as per the format provided in the Standard Tender Document.
4. **Performance Security- 10% of the Contract Value.**
5. **Integrity Pact-** Not applicable for this tender.
6. **Warranty Period:** Minimum One Year from the date of Installation and Commissioning.
7. **Terms of Payment:** The method and conditions of payment to be made to the supplier under this Contract shall be as follows:

A. Payment for Goods supplied from Abroad:

Payment of foreign currency portion shall be made in () [currency of the Contract Price] in the following manner:

- (i) **On Shipment:** 90 % (Ninety Percent) of the Contract Value of the Goods shipped shall be paid through Irrevocable Letter of Credit opened in favor of the Supplier upon submission of documents specified in the GCC/SCC.
- (ii) **On Acceptance:** 10 % (Ten percent) of the Contract Value of Goods received shall be paid within thirty (30) days of receipt of the Goods and successful installation & commissioning upon submission of claim supported by the acceptance certificate issued by the Purchaser along with the Performance security.

The L/C will be confirmed at the suppliers cost, if requested specifically by the supplier. All bank charges abroad shall be to the account of the beneficiary i.e. supplier and all bank charges in India shall be to the account of the opener i.e. purchaser. If L/C is requested to be extended/ reinstated for reasons not attributable to the purchaser, the charges thereof would be to the suppliers' account. Payment of local currency portion shall be made in Indian Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed. The LC for 100% value of the contract shall be

established after deducting the agency commission payable if any, to the Indian agent from the FOB/FCA value.

A. Payment for Goods and Services supplied from India:

Payment for Goods and Services supplied from within India shall be made in Indian Rupees, [INR] as follows:

On Delivery, Installation and Acceptance: 100 % (Hundred Percent) of the Contract Price shall be paid on receipt of the Goods, upon submission of the documents specified in GCC/SCC and the Performance Security along with the acceptance certificate issued by the Purchaser.

SPECIFICATION FOR MULTIMODE MICROPLATE READER WITH CELL IMAGING FACILITY

An advanced instrumental facility to perform different spectroscopic analysis (absorbance, fluorescence and luminescence) along with cell imaging facility with the desirable specifications mentioned below. The system should perform cuvette and microplate based readout for absorbance, fluorescence, TRF, FRET, TR-FRET, HTRF and Fluorescence Polarization. All of these should be enabled through appropriate filters/cassettes/cartridges etc. and quoted by the suppliers with the system.

General Specifications:

1. Facility to use cuvette (vertical/horizontal), microplate reader and should be able to adopt 6-384 well plate.
2. Modes of detection: Monochromators for UV-Vis Absorbance and monochromators/filters for Fluorescence, Time resolved fluorescence, Fluorescence Polarization and Luminescence.
3. Modes of Operation: End point, Spectrum scan, well scanning, Kinetic Measurements, Dual scans for Fluorescence.
4. Light source: Xenon flash lamp with high energy.
5. System working temperature should be ambient plus 5°C or less and up to 42°C or greater.
6. System should be able to accommodate a facility to purge gases such as O₂/CO₂
7. Scan type: end point assay, kinetics, spectral scanning for absorbance, fluorescence, luminescence and any other standard types.
8. Low volume quantification ($\leq 2\mu\text{l}$) should be provided.
9. System should support Linear and orbital shaking.
10. Reader must be able to spectral scan both excitation and emission.

Technical Specifications:

Absorbance Detection:

1. Wavelength range ≤ 240 to ≥ 800 nm
2. Photometric range : 0 to 4.0 OD
3. Photometric Resolution : 0.01 OD
4. Plate reading time ≤ 1 sec/well

Fluorescence Detection:

1. Both excitation and emission wavelengths should be in the range of ≤ 300 to ≥ 800 nm with both excitation and emission scan
2. Should be able to measure both top and bottom modes
3. Sensitivity should be as low as ≤ 5 pmol fluorescein/well
4. Should have automatic dynamic range

Time Resolved Fluorescence:

1. Wavelength selection: Monochromator and/or filter based
2. Both excitation and emission wavelengths $\leq 300 - \geq 700$ nm
3. Should have automatic dynamic range.

Luminescence Detection:

1. Luminescence range $\leq 400 - \geq 650$ nm
2. Dual reagent dispenser with variable volume
3. Dynamic range up to 6 or greater

Fluorescence polarization:

1. Enable fluorescein and rhodamine FP based assays
2. Measurement of excitation and emission using appropriate filters/LEDs

Dispenser:

1. Plate types: 6 to 384 plates
2. System should have Dual Reagent Dispenser /Injector for luminescence application.
3. The dual injector should have dispensing volume range 5-1000 μ L
4. Syringe size (upgradable): 1 mL with 1 μ L increments
5. System should have Dispense volume accuracy of $\pm 2\mu$ L.
6. Dynamic range up to 6

Cell counting and imaging:

1. Should be capable of cell imaging ($\geq 4X$ magnification)
2. Should be able to provide cell counting enabled with appropriate software
3. Camera with high resolution ($\geq 4MP$)
4. Automatic data acquisition and analysis software should be provided
5. System should obtain cell-based data in addition to well based intensity readings in the same instrument
6. Upgradable to CO₂/O₂ incubation facility for cell based assays.

Software:

- Software should enable the user to understand the system, easy to operate, assist to interpret, analysis and export in the preferred format such as raw data, graphs, tables etc.
- System should have different file formats during data export which includes .xlsx, .pdf, xml, and .txt
- Should be able to work in windows version 10
- Free software upgradation facility entire life time of the instrument

Computer and printer Configuration:

- The latest desktop with windows 10 operating software, Intel core i5 7th generation processor with minimum 4GB DDR 4 RAM, with dedicated intel HD 2GB graphic card, 1 TB Hard disk.
- WiFi / Bluetooth / DVD-RW / USB Keyboard / USB Mouse/2 X USB 2.0 / 6 X USB 3.0.
- LED desktop monitor with ≥ 21 inch screen size, with min 1920 X 1080 pixels resolution with minimum one year manufacturer warranty
- The system should be provided with 1 hr UPS back up

Printer: Multipurpose/multifunction/monochromatic laser color printer with duplex printing, copying and scanning facility along with minimum one year manufacturer warranty.

Basic Consumables: The basic consumables required to initiate experiments should be provided. White, black and transparent plates (1 box each), cell chips/slide/plate for microvolume measurements (10 Nos), cell apoptosis kit- 2Nos, TR-FRET kit - 1 No

All components, spares and accessories of the equipment must be from Original Equipment Manufacturer. The system should have safety compliant regulatory certification.