

## West Bengal Medical Services Corporation Limited Swasthya Sathi GN-29, Salt Lake, Sector-V Kolkata-700091

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#### Procurement, supply and installation of different medical equipment for Rare Diseases at IPGME&R SSKM Hospital of the Government of West Bengal (Submission of Bid through *online*)

Bid Reference No.: WBMSCL/NIT-496 /2025

Dated-12.06.2025

The following amendment have been made in the tender document,

# Amendment – I (Revision of Technical Specification)

The revised technical specifications for the item is given below,

### Multimode Microplate Reader

- The instrument should be a spectral scanning multimode microplate reader capable of doing photometry For DNA / RNA & Protein) Fluorometry, Luminescence and TRF & upgradable Alpha Screen.
- All specifications of the system should be tested and guaranteed. The specification should not be typical or relative values.
- Auto Gain facility should be available, not the default setting in software. Instrument should automatically calibrate results with different gain settings to obtain single consistent measurement range.
- If asked for demonstration, demo unit should be made available to check the performance of the instrument for our assays.
- Dynamic range for the fluorescence and luminescence should be mentioned and approximately it should be more than 6 to 7 decades.
- The quoted instrument should have option for field up gradation of dispensers for flash luminescence assays like Ca2 + flux, ATP assays etc.
- System should be supplied with Analysis software with unlimited user license.
- Software should have option for area selection. i. e different protocols at different area of the same plate.
- Spectral scanning of all samples minimum 96 should be able to view in single graph plot.

- Single software program should allow any number of measurement steps within the program.
- Orbital Shaking with adjustable timing, speed and diameter. Automatic safety control based on the shaking speed and plate format to avoid spilling of the liquid from wells.
- System should able to read 96 different wavelength in one 96 well plate in one protocol. No loss of already measured data even in case of power failure.
- Should be compatible for low volume sample analysis using accessory plate, volumes down to  $2 \mu L$ .
- Automatic Smart Safety Checks like Plate check, Prime check, Position sensors, Shaker check and dispensing volume check.

#### **Optical System:**

- Instrument should have Quadruple Monochromator based, double excitation and double emission monochromators for fluorescence applications
- Instrument should have double monochromators for photometric (UV and Vis) measurement.
- The instrument should have a single lamp source and separate detectors for Photometry, Fluorometry and optional module for Time resolved fluorescence and Luminescence.

#### Absorbance / Photometry

- Measurement range in Photometry: 200-1000nm
- Linear measurement range in photometry:
- 0-4Abs at 450 nm,  $\pm 2\%$  (96-well plate)
- Instrument should have on-board path length correction for direct quantification. E.g. Nucleic acids and proteins.
- Plate type: 6 well to 384 well format, also low volume  $(2\mu \text{ to } 10\mu\text{l})$  analysis plate for DNA/RNA estimation

#### Fluorescence/Fluorometry :

- Fluorometry wavelength selection: Excitation range: 200-800nm, Emission: 270-840nm
- Fluorescence sensitivity of 0.4 fmol fluorescein per well with 384 well black plates.
- Plate Type: 6 well to 1536 well format.

#### Luminometry :

- Luminometric sensitivity of <7 amol ATP/well with 384 well white plate using flash ATP reaction. Should have spectral scanning option.
- Luminometry should have three measurements mode Normal, Filter and Monochromator mode with excellent sensitivity.

TRF:

Wavelength range 360 to 650 nm with terbium based measurement.

#### Incubator and Shaker

- Temperature range ambient to 40° C
- Shaking orbital

#### Data Analysis Software:

- System should be supplied with Analysis software with unlimited user license.
- Database based software to run backups of all data, restore back up data (in case of hardware failure of original computer.
- Single -Click data export option to open Microsoft Excel.

- Should have different file formats during data export which includes .xlsx, .pdf, xml, and .txt
- Software should have option for area selection. i. e different protocols at different area of the same plate.
- Spectral scanning of all 96 samples or 384 samples should be able to view in single graph plot.
- Single software program should allow any number of measurement steps within the program.
- A suitable PC with atleast 8GB RAM along with the machine.

#### Standard & safety certification:

Certificate/ Registration/ License of the manufacturer- CDSCO/ 4 digit European CE from the notified body/ European CE/ CE (Declaration of Conformity)/USFDA.