

Specifications for Purchase of Flow Cytometer

Under DST FIST Scheme for Department of Biochemistry, Shivaji University, Kolhapur

- Easy to use Flow cell based flow cytometer is required with below two lasers :
- 488 nm, blue laser and 633- 640 nm red laser.
- System should have four fluorescence detectors and two light scatter detectors (forward & side scatter) with total six parameters measurement capabilities.
- All Lasers & their excitation & collection optics should be fixed & pre-aligned.
- The Flow Cytometer should have the capability of user-changeable optical filters with an ease as per required application.
- Minimum Detectable Particle Size should be 0.5 μm
- System should have events per second at 10,000/eps.
- System should have Fluorescence Sensitivity at least MESF FITC <75; PE <50
- System should be able to do absolute counting of cells without using any reference bead.
- System should have 24 bit signal processing and digital data with 5-7decade dynamic range for an ease to user making all data available for analysis.
- Voltage and gain auto setting for user convenience .
- System should have free license system acquisition & analysis software.
- System should be quoted with latest compatible computer from source with 23 inch full HD monitor
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- On-site training and performance demonstration required
- User list & performance certificate from 5 Govt. users should be provided

Accessories

The Flow cytometry system accessory should be provided with alternative to measure top & bottom Fluorescence from cells, nano - particles, Chemical entities. Additionally, it should be provided with the system to measure Ultra-sensitive luminescence coming out from cells, to measure cell viability and proliferation and other luminescence assays.

- The system accessory should be capable of reading ELISA's in 384 well format. The same system should be capable of reading 680nm laser based Alpha Technology assays to study various Protein-Protein Interactions and other cellular interactions. The system accessory should be future upgradable to s CMOS based Fluorescence, bright field & DPC imaging.
