



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai - 400076

PR No. 1000039268

Rfx No.6100001688

**Technical Specifications for Binding Affinity Analyser (Qty-1)**

Sr. No.	Content	Specification	Compliance (Yes/No)
1	<b>Binding Affinity Analyser features</b>	<p>The instrument should provide an immobilization-free technology for measuring the biomolecular interactions. It should be equipped with Microscale Thermophoresis (MST) and Isothermal Spectral Shift measuring principles in a single equipment.</p> <p>It should be capable of performing Temperature Related Intensity Changes Measurements (TRIC) during the run of an experiment.</p> <p>It should precisely detect the motion of fluorescent molecules along a microscopic temperature gradient, which reflects changes in the molecular hydration shell, charge or size.</p>	
2	<b>Sample detection range</b>	10 <sup>1</sup> -10 <sup>7</sup> Daltons	
3	<b>Sample types</b>	Membrane proteins, IDP's, Small Molecules, Fragments, PROTACS, Nanoparticles, Ions, DNA, RNA, Peptides, Liposomes, platelets, whole cells, Virus particles.	
4	<b>Affinity detection range</b>	nM to mM	



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5	<b>Temperature range</b>	20-40 °C	
6	<b>Comprehensive Information</b>	<p>The system should be Buffer Independent and can work with any type of solution eg. DMSO/ organic solvents.</p> <p>The system should measure Kd's in solution of any biomolecules only in close to native conditions.</p> <p>The system should provide additional information on stoichiometry, aggregation, oligomerization and Thermodynamic parameters (e.g. enthalpy and entropy via a Van't Hoff Plot).</p> <p>The instrument user can measure up to two dissociations constant in a single experiment with different or identical ligands in parallel.</p> <p>The instrument should have a Red fluorescent channel for interaction detection.</p> <p>The system should be capable of analysing up to 24 samples/run in less than approximately 10 minutes.</p>	
7	<b>Computer/OP/Software</b>	<p>The instrument should come with complete hardware/software including preloaded instrument control, data acquisition- and reporting software on a laptop/PC with a licensed Windows 10 or higher operating system. The system should be capable of performing competition assays as well as Ternary binding interactions.</p>	



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8	<b>Operating Voltage</b>	Operating Voltage: 220V/50 Hz.	
9.	<b>Delivery time</b>	Door delivery, 8-10 weeks from receipt of Purchase order	
10.	<b>Installation</b>	A qualified factory-trained engineer shall conduct on-site installation, commissioning, and training.	
11	<b>Warranty</b>	Standard one-year warranty.	
12	<b>Service support</b>	<p>Suppliers must have active support in Mumbai. Suppliers should mention how instrument service and repair time will be minimized.</p> <p>Bidders must provide full details of after-sales service support and a list of users within India over the last 3 years with their contact details.</p> <p>The System offered must be available on the Website of the Manufacturer or on a Brochure.</p>	