

Which instrument do you need?

Match your scientific question to the right technique below.

Note: ITC and AUC are available via collaborative access — see instrument entries for details.

YOUR QUESTION	TECHNIQUE	KEY OUTPUT
How fast does my protein bind and dissociate?	SPR (Biacore T200) BLI (Gator Prime)	k_a , k_d , K_D
What is the binding affinity (K_D) of my interaction?	SPR BLI ITC* (Malvern ITC200)	K_D (equilibrium)
What drives the binding thermodynamically?	ITC*	ΔH , ΔS , ΔG , stoichiometry
Do two antibodies compete for the same epitope?	SPR BLI	Epitope bin / competition map
What is the oligomeric state of my complex?	Mass Photometry (TwoMP) AUC* (ProteomeLab XL-1) DLS (Zetasizer Nano ZS)	Molecular mass (kDa)
Is my protein aggregated or polydisperse?	DLS (Zetasizer Nano ZS) Mass Photometry	Hydrodynamic radius, PDI, molecular weight (kDa)
What secondary structure does my protein adopt?	CD (Chirascan) Fluorimetry (Cary eclipse)	% α -helix, β -sheet, disorder
Does my protein unfold with temperature?	CD DLS Fluorimetry (Trp)	T_m , unfolding ΔG
I need to screen many fragments/small molecules quickly	BLI SPR (single-cycle)	Yes/no binding + K_D rank
My interaction is weak/low-affinity and only forms complexes at μM concentrations	MassFluidix HC (TwoMP + accessory)	Molecular mass of complex at high conc.

What is the size and shape of my macromolecule?	AUC* DLS Mass Photometry	S-value, Mw, f/f0
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* Collaborative access — contact devanshu.mehta@ntu.edu.sg for referral.

Not sure? Email the facility in-charge for a no-obligation discussion or consultations on your experimental design.

How would you like to work with us?

We support users at all levels of experience — from hands-on independent researchers to groups needing full project support.

Full-Service

The facility team designs the experiment, prepares the surface, runs all samples, analyses the data, and delivers a summary report.

Best for: New users · Industry collaborators · One-off experiments

Assisted Run

You bring your samples; a facility staff member works alongside you at the instrument. You learn the technique while generating real data. This is the natural stepping stone toward independent use.

Best for: New users learning the technique · PhD students

Independent / Self-Operation

Trained and certified users book instrument time directly via the NTU CEBS-FOM online system and operate independently. Training is provided for users with ongoing, regular research needs.

Best for: Regular users · Long-term NTU research projects

Consultation Only

Discuss experimental design, troubleshoot an existing assay, or get help interpreting SPR/ITC/BLI data — without necessarily booking instrument time.

Best for: Planning new projects · Troubleshooting · Data analysis support

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Where facility staff have made a substantive intellectual contribution to a project, appropriate authorship consideration is appreciated, consistent with standard academic collaboration practice.