

About Gator Bio

At Gator® Bio, we are dedicated to helping researchers bring meaning to every molecule. Our Biolayer Interferometry (BLI) solutions make biomolecular analysis faster, easier, and more reliable—giving scientists the power to accelerate discoveries that make a difference.

With a focus on continuous innovation, we're advancing BLI technology through high-throughput automation, AI-driven design, and new tools for emerging applications.

Together, we're shaping the next era of biologic analysis.

Get in touch with us

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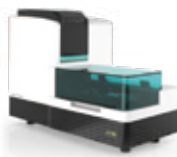
SOCIAL

YouTube

LinkedIn



Gator Pilot



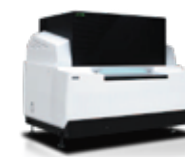
Gator Prime



Gator Plus



Gator Pivot



Gator Pro

PERFORMANCE

Type of analysis	Proteins, antibodies, peptides,		nucleic acids, liposomes, viruses, small molecules		
Maximum simultaneous read	4	8	8	Up to 16	Up to 32
Maximum sample capacity	40	168	456	816	1152
Molecular weight	> 150 Da				
Association rate (k_{on})	10^1 to 10^7 M ⁻¹ s ⁻¹				
Dissociation rate (k_{off})	10^{-7} to 10^{-1} s ⁻¹				
Affinity constant (K_D)	10 pM – 1 mM				
Quantitation range (Protein A biosensor)	0.02 – 2000 µg/mL				
Binning capacity	6x6	12x12	16x16	20x20	32x32
Baseline noise (RMS)	≤ 4 pm				
Baseline drift	≤ 0.12 nm/hour	≤ 0.12 nm/hour	≤ 0.1 nm/hour	≤ 0.1 nm/hour	≤ 0.1 nm/hour
Acquisition rate	2, 5, and 10 Hz				

SPECIFICATIONS

Spectrometers	4	8	8	16	32
Sample microplate*	96-well format ¹	96-well format ^{1,2}	96 or 384-well format ^{1,2,3,4}	2 x 96 or 384-well format ^{1,2,3,4}	3 x 96 or 384-well format ^{1,2,3,4}
Sample temperature control	Ambient plus 4°C to 40°C	Ambient plus 4°C to 40°C	Ambient plus 4°C to 40°C	15°C to 40°C	Ambient plus 4°C to 40°C
Automation compatible	No	No	No	Yes	Yes
Minimum sample volume	180 µL ¹	130 µL ²	40 µL ⁴	40 µL ⁴	40 µL ⁴
Smart monitoring	No	No	No	Yes	Yes
Self-cleaning	No	No	No	Yes	Yes
Dimension – H x W x D (cm)	50 x 67 x 32	50 x 67 x 31	63 x 73 x 44	95 x 87 x 79	91 x 114 x 77
Weight (kg)	31 kg	35 kg	55 kg	130 kg	220 kg

*Gator Bio offers ¹ 96-well flat-bottom, ² 96-well tilt-bottom, ³ 384-well flat-bottom and ⁴ 384-well tilt-bottom microplates for range of BLI applications

Gator Total Solutions

The Next-Gen Biolayer Interferometry



Bi-layer Interferometry (BLI)

A Powerful Tool for Discovery, Development, and Manufacturing

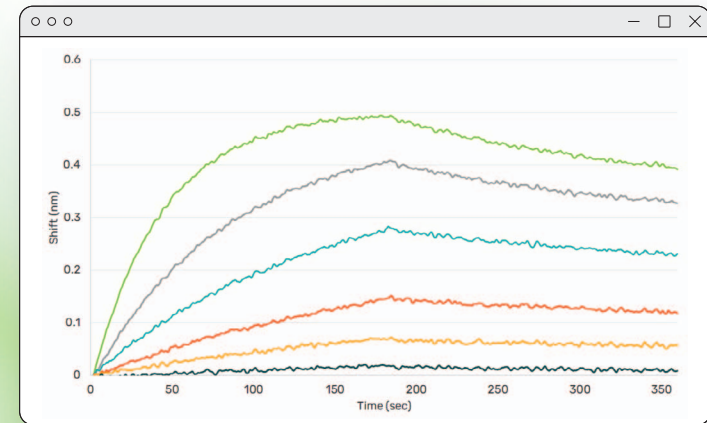
A User-Friendly Label-Free Technology

A Full Suite of Applications

Gator® Bio BLI Systems are label-free analysis instruments based on next-gen bi-layer interferometry (BLI) technology. BLI detects biomolecular interactions by immersing biosensing probes in samples.

Gator probes are micro-glass rods with the distal ends coated with proprietary optical layers and surface chemistries.

The association or dissociation of biomolecules causes a phase-shift of the optical interference pattern generated from a probe's sensing surface. Continuous measurements of the phase-shift yield binding curves.



The sensorgram shows the real-time association and disassociation curves for a binding kinetics experiment using a Gator system.

The ease-of-use, versatility, flexibility, and throughput of Gator Bio BLI Systems have enabled many applications in therapeutic development, manufacturing, and life science research.

The next-gen BLI demonstrates higher sensitivity and more robust performance than the other commercial BLI products. It also supports wider range of applications, from drug discovery to therapeutics manufacturing.



Biotherapeutics

- Antibody titer measurements
 - Kinetics analysis
 - Epitope binning
- Process development
- Manufacturing QC
- Pharmacokinetics



Drug Discovery & Development

- Protein - small molecule interaction
- Peptide binding analysis



Gene Therapy

- AAV quantitation & kinetics
 - Genome Titer
 - Receptor interaction
 - Gene expression
- Neutralizing/ Total Antibody Detection

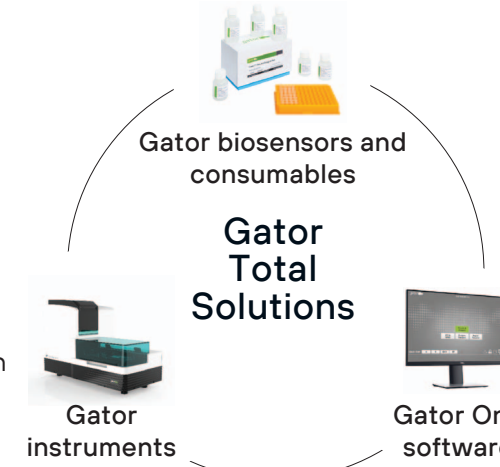


Life Science Research

- Protein - protein interaction
- Receptor - ligand binding
- Assay development and optimization

Gator Bio BLI Systems consist of instruments, probes, and integrated data acquisition and analysis software package.

- Simple and fast assay setup
- Automated quantitation
- Quantitation, kinetics, and regeneration in one run
- Kinetics and affinity analysis
- Real-time binding curves
- Epitope binning
- Assay template generation
- Report generation



Gator Software for GMP and GLP

Gator Part11 Software enables users in GMP or GLP environments to comply with FDA 21 CFR Part 11 regulations.

All data acquired with the Part11 Software is time-stamped and traceable. Features such as account management, enhanced audit trails, and recorded user sessions are in compliance with FDA guidance.

Gator Probes	Applications	Q	K	EP	Dynamic range (µg/mL)	Reusable
ANTIBODY BIOSENSORS						
Pro A	IgG titer	●	●		0.02 - 2000	●
Pro G	IgG titer	●	●		0.02 - 2000	●
Pro L	IgG titer using kappa-light chain	●	●		0.02 - 2000	●
HFC	Human IgG characterization by human IgG Fc capture		●	●		
HFC Gen II	Second-generation HFC probes with higher affinity capture and better regenerability	●	●	●	0.3 - 6000	●
MFC XT	Capture and analysis of Mouse IgG (IgG1, IgG2a, IgG2b, IgG3) and Fc-fusion proteins	●	●	●	0.025 - 10000	●
Anti-Rabbit Fc	Rabbit IgG characterization by rabbit IgG Fc capture	●	●	●	0.05 - 4000	
Anti-FAB	F(ab), F(ab)2 characterization by CH1 capture	●	●	●	0.3 - 3000	●
IgM	Human IgM titer/characterization	●	●		0.4 - 300	●
Anti-VHH	Camelid anti-VHH characterization	●	●		0.05 - 10	●
PURIFICATION TAGS						
Anti-His (HIS) XT	Captures His-tagged proteins with high affinity	●	●	●	0.2 - 1000	●
Anti-His	Captures C- and N-terminal 6-His and 8-His tagged proteins	●	●	●	0.25 - 500	●
Ni-NTA kit	Ni-NTA capture surface for purified His-tagged proteins	●	●	●	0.1 - 1000	●
Strep-Tactin XT	Captures Twin-Strep-tagged proteins (seq: SAWSHPPQFEKGGGSGGGGSAWHPQFEK)	●	●	●	~0.02 - 20	●
Anti-GST	Captures GST-tagged proteins	●	●	●	0.5 - 300	●
Anti-FLAG	Captures FLAG-tagged proteins		●			
STREPTAVIDIN SUITE						
SA	Streptavidin surface. Captures biotinylated molecules		●	●		
SA XT	High sensitivity SA probe for low Mw (>1 kDa) and high Mw (<2 MDa) analytes		●	●		
SMAP	High sensitivity SA for small molecule and small peptide analytes		●			
FlexSA kit	Re-activatable SA biosensor kit		●			●
CELL & GENE THERAPY						
AAVX/AAV9	Measures intact AAV viral particle titer	●	●		7E ⁹ - 1E ¹⁴ vp/ml	
HSAAX/AAV9 kit	Measures low concentration intact AAV viral particle titer	●			1E ⁷ - 1E ⁹ vp/ml	
AAV Ratio kit	Determine AAV empty/full capsid ratio	●			5 - 100% full	
Anti-PEG	Captures PEGylated proteins/LNPs		●			
USER-CUSTOMIZED CHEMISTRIES						
AR	Amine coupling surface ready for EDC-NHS coupling		●			
APS	APS surface for hydrophobic ligand capture		●			
Custom	Customized to your specifications	●	●	●	Varies	Varies

● Only available with Gator® Bio.