About Gator Bio

Gator Bio develops, manufactures, and markets life science analytical technologies including Gator[®] systems based on the next-gen Biolayer Interferometry. The company was founded by the industry veterans Dr. Hong Tan and Mr. Bob Zuk. Previously, Dr. Hong Tan founded ForteBio[®] and led the invention of Octet[®] BLI technology. (h)

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Gator Bio together with its sister companies have more than 600 employees worldwide and sell both diagnostics and research-use-only products. The company is ISO13485 certified. Gator[®] systems have been adopted by scientists and researchers in North America, Asia Pacific, Europe, and Middle East.

The investors of the company include Legend Capital, Matrix Partners, Maison Capital, Qiming Venture, HillHouse, Sequoia Capital, Kaiser Permanente, and Sinovation etc.

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General Specifications

	Gator [®] Prime Gator [®] Plus			
Detection Technology		Next-gen Biolayer Interferometry		
Simultaneous Reads	8	8		
Spectrometers	8	8		
Acquisition Rate		2, 5, and 10 Hz		
Temperature Control		Ambient plus 4°C to 40°C		
Dimension (HxWxD) and Weight	47 x 67 x 31 cm, 35 kg	68 x 73 x 44 cm, 55 kg		
Automation Compatible	No	No		

Performance Specifications

	Gator [®] Prime	Gator [®] Plus					
Sample Types	Proteins, antibodies, peptides, nucleic acids, liposomes, viruses						
Maximum Sample Capacity	168	456					
Types of Analysis	Yes/no binding, quantitation, kinetics, affinity, off-rate ranking,						
Minimum Sample Volume	100 µL	40 µL					
Baseline Noise (RMS)		≤ 4 pm					
Baseline Drift	≤ 0.12 nm/hour	≤ 0.1 nm/hour					
Associate Rate k _{on}		10 ¹ to 10 ⁷ M ⁻¹ s ⁻¹					
Dissociation Rate k _{off}		10 ⁻⁶ to 10 ⁻¹ s ⁻¹					
Affinity Constant K _p		10 pM to 1 mM					
Binning Capacity	12x12	16x16					





Gator[®] Pro

8, 16, 24, and 32

32

84 x 114 x 77 cm, 220 kg

Yes





Gator[®] Label-Free Analysis Systems

The Next-Gen Biolayer Interferometry





Biolayer Interferometry (BLI)

Gator® systems are label-free analysis instruments based on next-gen biolayer 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 disassociation 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® systems have enabled many applications in therapeutic development, manufacturing, and life science research.

A Powerful Tool for Discovery, Development, and Manufacturing

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

Gene Therapy

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

Drug Discovery & Development

- Protein small molecule interaction
- Peptide binding analysis

Life Science Research

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

A User-Friendly Label-Free Technology

Gator[®] Systems consist of in integrated data acquisition and age.

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



Gator[®] Part11 Software enables environments to comply with F All data acquired with the Part and traceable. Features such as enhanced audit trails, and reco compliance with FDA guidance

A Full Suite of Applications

	Gator® Probe	Function		Dynamic Range	Regeneration
			Application		Mar
struments, probes, and d analysis software pack-	ProA	lgG titer	Q	0.02 - 2000 μg/mL	Yes
	ProG	IgG titer	Q	0.02 – 2000 µg/mL	Yes
	ProL	Kappa light chain titer	Q	0.02 – 2000 µg/mL	Yes
	SA	Biotinylated and Avi-tagged molecules	K/EP	Protein dependent	No
	SAXT	Biotinylated proteins and large molecules	К	Protein dependent	No
generation in one run	Flex SA Kit	Reusable SA kit	K	Protein dependent	Yes
	SMAP	Measurement of small molecules, peptides (<150 Da)	К	Protein dependent	No
	HFC	Human IgG characterization	Q/K/QKR/EP	0.05 - 300 µg/mL	Yes
	HFCII	Advanced human IgG characterization	Q/K/QKR/EP	0.3 – 6000 µg/mL	Yes
	MFC	Mouse IgG characterization	Q/K/QKR/EP	0.02 – 6000 µg/mL	Yes
	Anti-FAB	F(ab), F(ab')2	Q/K/QKR/EP	0.3 – 3000 µg/mL	Yes
or GMP and GLP	APS	Direct adsorption	К	Protein dependent	No
	AR	Amine coupling immobilization	K/EP	Protein dependent	No
	His	His-tagged proteins	Q/K/QKR/EP	Protein dependent	Yes
	Ni-NTA Kit	His-tagged proteins through Ni-NTA	Q/K/QKR/EP	0.25 – 1000 µg/mL	Yes
	Strep-Tactin XT	Proteins with Twin-Strep-tag®	Q/K	Protein dependent	Yes
s users in GMP or GLP FDA 21 CFR Part 11 regulations. 11 Software is time-stamped as account management, orded user sessions are in e.	AAVX	Direct binding titer (AAV1-10)	Q/K	1x10 ⁹ – 1x10 ¹³ vp/mL	Yes
	AAV9	Direct binding titer (AAV9)	Q/K	3x10 ⁹ – 1x10 ¹³ vp/mL	No
	HS AAV Kit	High sensitivity titer (AAV1-8, 10)	Q	1x10 ⁷ - 5x10 ¹⁰ vp/mL	No
	HS AAV9 Kit	High sensitivity titer (AAV9)	Q	1x10 ⁷ - 1x10 ⁹ vp/mL	No
	AAV Ratio Kit	Empty vs Full Ratio Determination	Ratio	0-100% full	No
	Anti-GST	GST-tagged proteins	Q/K	Protein dependent	No for Q