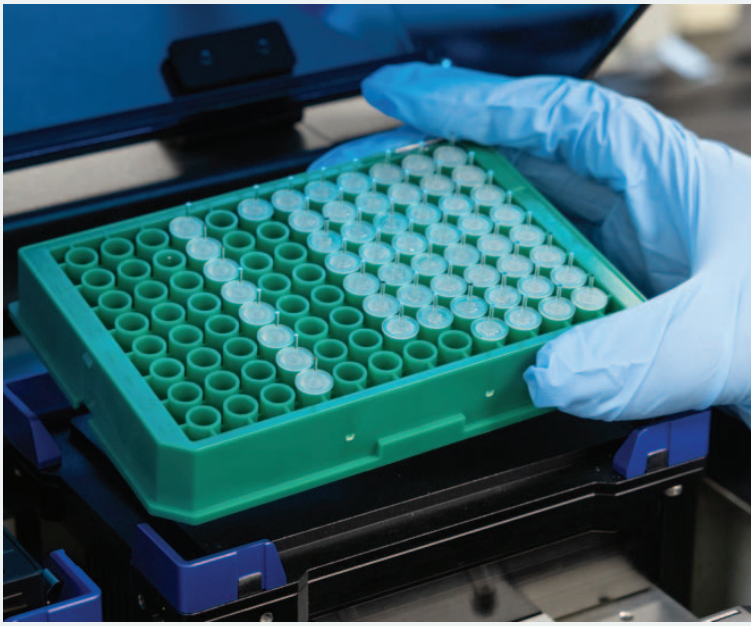
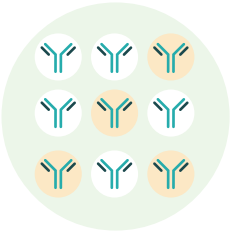
MFC XT Biosensors for Mouse IgG Analysis



Gator® Bio's new Anti-Mouse Fc (MFC) XT biosensors deliver high sensitivity for accurate quantitation and affinity characterization of mouse IgGs.

With a broad dynamic range, our regenerable biosensors provide reliable, cost-effective quantitation and kinetic characterization with excellent precision. They are engineered for seamless integration into antibody discovery and development workflows, with an enhanced design that ensures consistent performance and reproducibility.

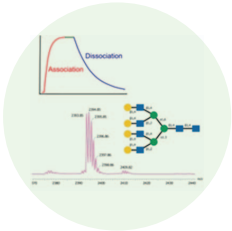


Hybridoma Screening

a) mAb screening

b) Quantitation in supernatant

c) Off-rate ranking



Lead Characterization

a) Binding kinetics

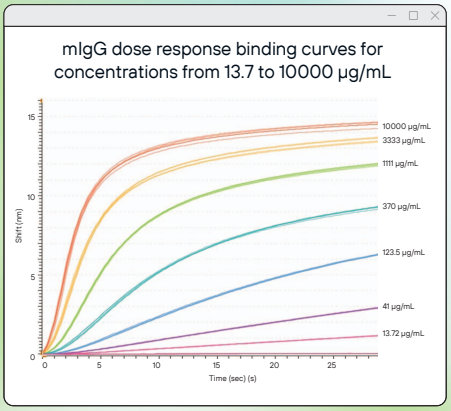
b) Epitope binning

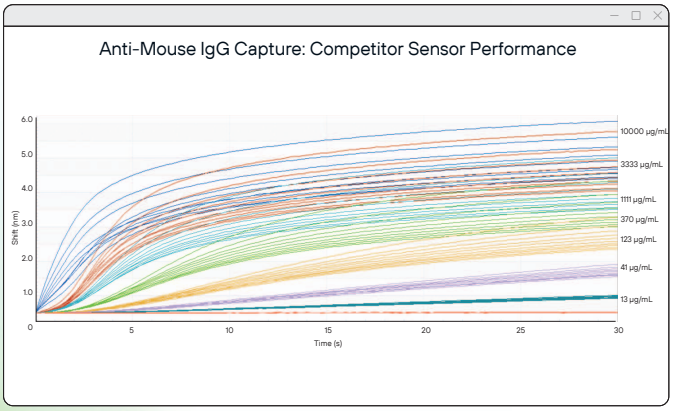
c) Cross reactivity

Key Features

- High specificity to mouse IgG over other species (minimal cross reactivity to rat IgG1)
- Strong binding to Fc domain of all mouse IgG subclasses (IgG1, IgG2a, IgG2b, IgG3)
- Dynamic range: 0.025 – 10000 µg/mL
- Assay precision for quantitation: CV <5%
- Easy regeneration with minimal loss of performance

Accurate Quantitation Through Enhanced Dose-Response Linearity with MFC XT

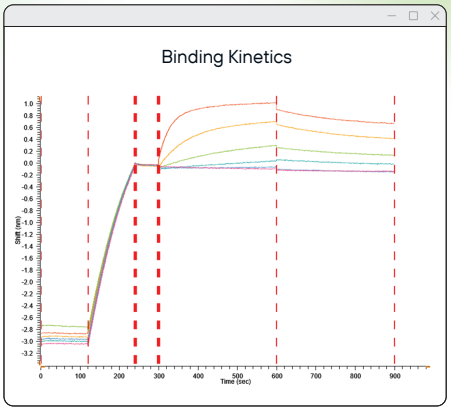


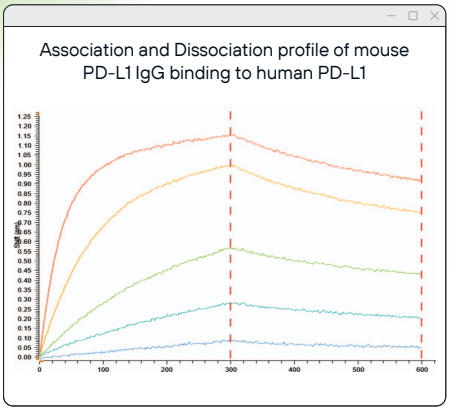


Known Concentration (µg/mL)	Quantitation %CV (n=5)
10000	6.67
3333	2.06
1111	0.71
370.4	0.80
123.5	1.19
41.2	0.88
13.7	0.76

Shows signal precision across the recommended concentration range for quantitation assays.

Kinetic Characterization of Mouse IgG–Analyte Interaction Using Gator MFC XT Biosensors



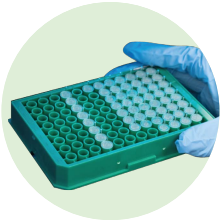


Kinetic assay	k_{off} (1/s)	k_{on} (1/Ms)	K_D (M)
1	8.86E-04	8.46E+04	1.05E-08
2	8.93E-04	8.71E+04	1.03E-08
3	9.16E-04	8.50E+04	1.08E-08
4	9.17E-04	9.12E+04	1.01E-08
5	9.32E-04	8.90E+04	1.05E-08
6	9.53E-04	9.29E+04	1.03E-08
7	1.03E-03	9.34E+04	1.10E-08
8	1.04E-03	9.20E+04	1.13E-08
9	9.66E-04	9.36E+04	1.03E-08
11	1.04E-03	9.75E+04	1.06E-08
12	9.41E-04	9.83E+04	9.58E-09
Average (12 Regenerations)	9.56E-04	9.13E+04	1.05E-08
%CV (12 Regenerations)	5%	4%	4%

The K_D and %CV for 12 cycles of regeneration for mouse PD-L1 IgG (150 kDa) to human PD-L1 (20 kDa)

Rapid and Reliable Hybridoma Screening of Cell Culture Supernatant Samples with MFC XT

Mouse Hybridoma Generation



Mouse Antibody Screening

Gator Pro Automated HTP screening for lead selection

Off-rate Ranking

Epitope Binning

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