

Anti-Murine IgG (AMQ) Biosensors

For determination of antibody concentration

Key features

- Direct measurement of immunoglobulins (IgG) from mouse and rat species
- Convenient working range 1–100 µg/mL
- Assay samples without serially diluting or centrifugation
- Assay mouse sera, cell lysates or supernatants
- Fast turnaround of results

ForteBio's Dip and Read™ Anti-Murine (AMQ) IgG biosensors, in conjunction with the Octet® system, are designed for monitoring antibody concentrations in mouse or rat sera and cell culture supernatants. Using Anti-Murine IgG biosensors, the Octet system supports applications from assay development, clonal selection, and cell culture screening to concentration monitoring during development and manufacturing.

Quick facts

- Dynamic range: 1–100 µg/mL for whole or subtype-specific mouse and rat IgGs
- Throughput: 8 samples in ~2 minutes
96 samples in ~32 minutes
- Precision/accuracy: < 10% CVs
- Limit of detection: typically 1 µg/mL

Research and development applications

Accurate antibody quantitation is critical to selecting cell lines for development, research, and bioprocess optimization. Traditional methods for measuring antibody concentration include HPLC, ELISA, and densitometry, all which require long analysis times and are burdened with a lack of specificity and precision.

Anti-Murine IgG biosensors can be used on the Octet system to streamline a variety of research and assay development applications by providing precise results with minimal sample handling and rapid turnaround.

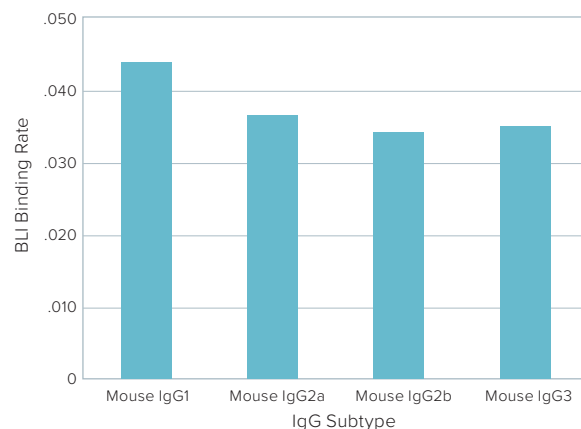


Figure 1: Recognition of various mouse subtypes using Anti-Murine biosensors on the Octet system.

Applications include:

- Hybridoma screening
- Research
- Process development
- Manufacturing

Sample types

Anti-Murine IgG biosensors have been tested on the Octet system using purified antibodies, supernatants and sera.

Recognition of mouse IgG subtypes

ForteBio's Anti-Murine IgG biosensors have been shown to recognize IgG1, IgG2a, IgG2b and IgG3 for mouse immunoglobulins. Calibration and specificity are standard-dependent.

Recognition of rat IgG subtypes

In addition, ForteBio's Anti-Murine IgG biosensors have been shown to recognize IgG1, IgG2a, IgG2b, and IgG2c for rat immunoglobulins. Calibration and specificity are standard-dependent.

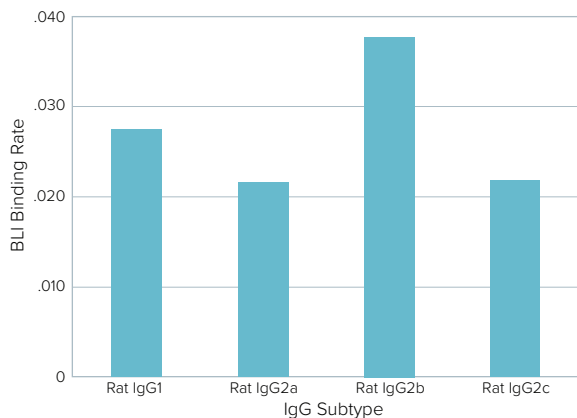


Figure 2: Recognition of various rat immunoglobulin subtypes using Anti-Murine biosensors on the Octet system.

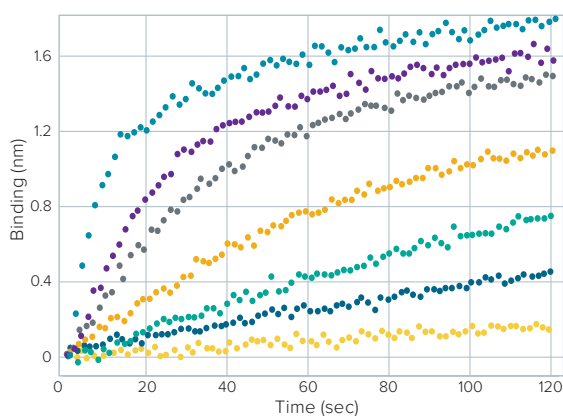


Figure 3: Real-time binding chart of mouse IgG standards.

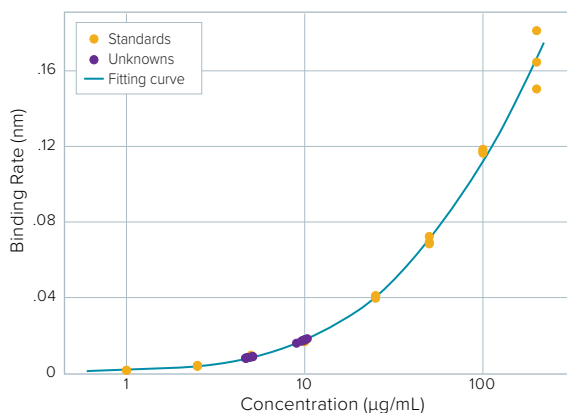


Figure 4: Standard curve with unknowns plotted on the curve.

Anti-murine IgG assay principle

The Anti-Murine IgG Assay for determining IgG concentration is based on the rate of binding of the IgG of interest to the biosensor surface. Different IgG concentrations result in different binding rates. The Octet system software calculates the binding rates from standards with known IgG concentrations to generate a standard curve—the binding rate of each standard is proportional to its concentration. IgG concentrations of experimental samples are calculated by comparing their binding rates to those of the known concentrations that make up the standard curve.

Assay parameters

- Sample volume: 200 µL/well
- Hydration solution volume: 200 µL/well
- Data acquisition: 120 seconds/8 biosensors
32 minutes/96-well plate
- Flow rate: 200 rpm/second
- Biosensor hydration and sample plate equilibration: 10 minutes
- Curve fit: 5-parameter logistic

Ordering information

Part no.	UOM	Description
18-5022	Tray	Tray of 96 biosensors coated with goat anti-mouse IgG antibody (includes 1 bottle of diluent)
18-5023	Pack	Five trays of 96 biosensors coated with goat anti-mouse IgG antibody (includes 5 bottles of diluent)
18-5024	Case	Twenty trays of 96 biosensors coated with goat anti-mouse IgG antibody (includes 20 bottles of diluent)

Note: additional materials are required to run these assays.

For more information about ForteBio's Octet platform for label-free, real-time detection of biomolecular interactions, applications, and services, visit www.fortebio.com or contact us directly.