Addressing the problem of IgG quantification in biologics

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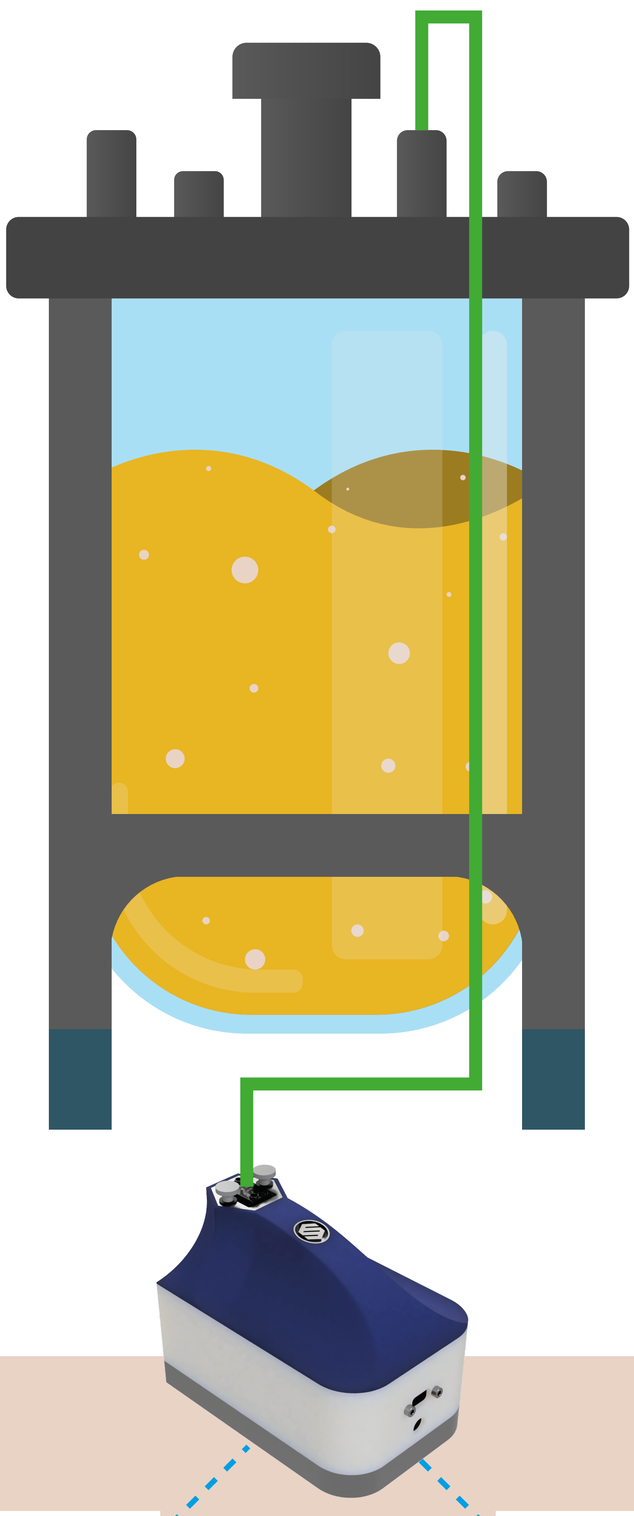
Accurate, cost-effective and timely quantification of IgG concentration is a vital tool in the development and manufacture of antibody-based biologics. However, we are often forced to compromise when using current tools. Causeway sensors have developed a dedicated SPR based sensor platform designed to allow accurate, affordable, rapid and robust IgG quantification from a variety of sample matrices with minimal sample prep.

Wide Dynamic Range
The Standard curve of the assay operates over a range of 4-5 orders of magnitude, limiting the need for multiple dilutions and extensive sample prep to obtain an accurate result.

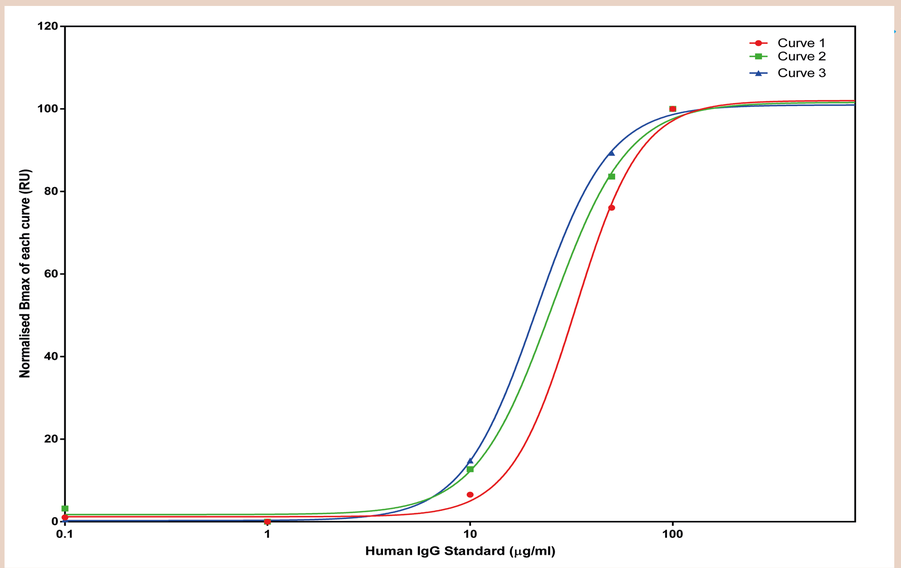
Accurate
Generic IgG standards often fall short of providing a universal point of accuracy in binding assay based measurement of real IgG biologics. Causeway's assay validation includes real clinical therapeutic antibodies and recombinantly expressed IgG in representative media.

Rapid
Using a 60 second per sample turnaround time allows for rapid results compatible with at-line measurement in a production environment and real-time response.

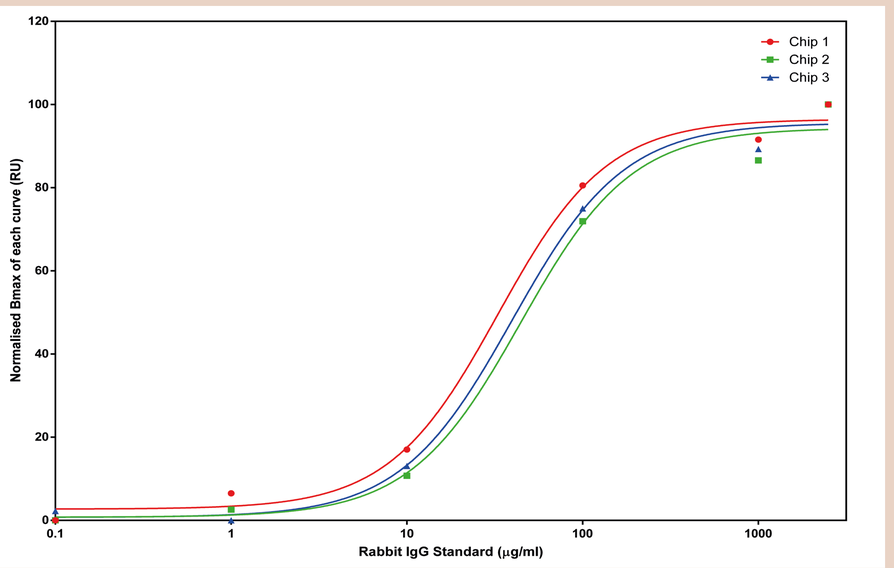


The Instrument
The Causeway instrument utilises an SPR signal with an extended linear response allowing for a wide dynamic range in measurement, granting the assay ideal performance limits for this application. The unique chips use a proprietary poly-electric layering (PEL) surface technology, demonstrating high stability and resistance to regeneration conditions, minimal non-specific interaction and is fully compatible with industry standard coupling chemistries.

Protein A-coupled chip against human monoclonal antibody



Protein G-coupled chip against rabbit monoclonal antibody



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