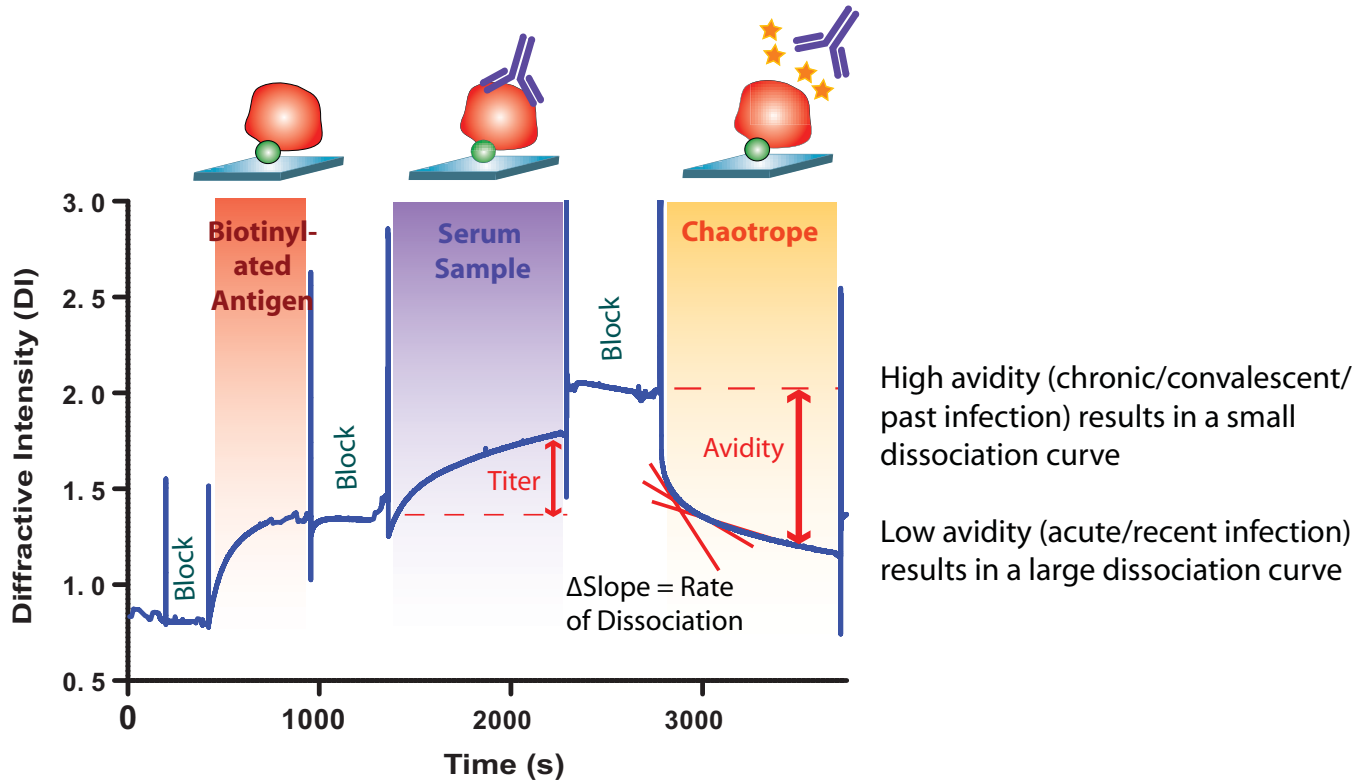# Rapid Determination of IgG Titer and Avidity

The measurement of antibody avidity in a serological test has wide spread applications in infectious disease research and vaccine development. For instance, it is used for distinguishing between recent and past infections in patients with diseases where time of infection onset is critical (eg. *Toxoplasma gondii* infection in pregnant women), and for determining the level of immunity after vaccination. The illustration below shows the dotLab® mX System real time detection feature being used to rapidly measure both the antibody titer and avidity of a serum sample during a single and easy to perform assay.

High avidity (chronic/convalescent/past infection) results in a small dissociation curve

Low avidity (acute/recent infection) results in a large dissociation curve

Highlights

- Antibody avidity is derivated from the chaotrope induced dissociation curve
- Titer and avidity information in a single assay
- Rapid results (less than one hour)
- Potential for multiplexing using Axela's panelPlus™ Sensors
- Suitable as a rapid and easy to use platform for infectious disease and vaccine research