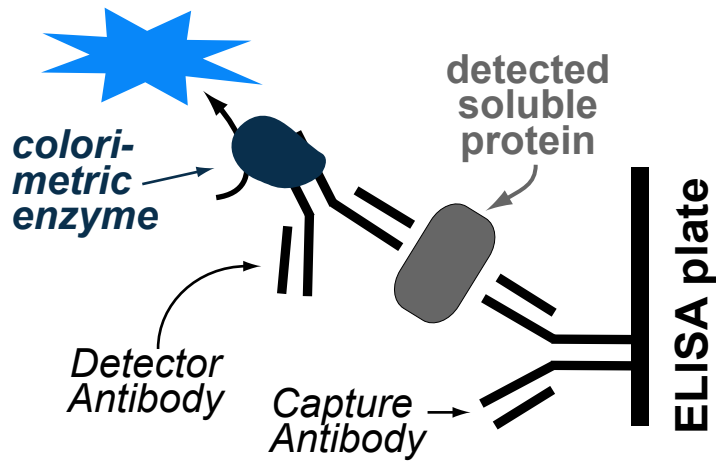
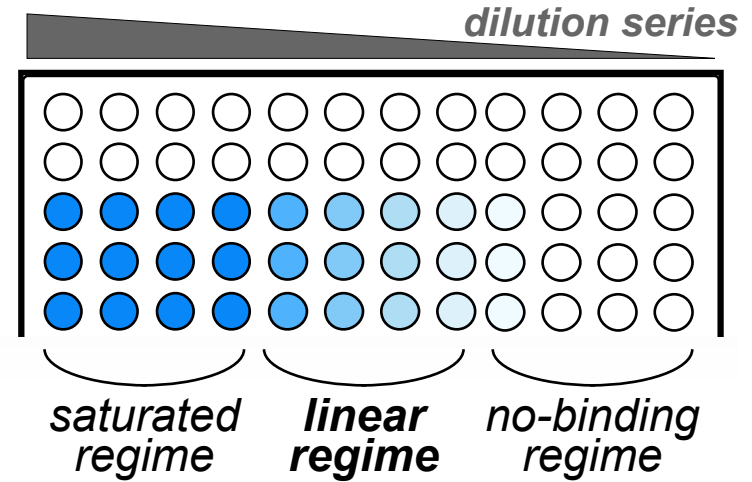


A. Sandwich ELISA Mechanism



B. 96-well plate sandwich ELISA data



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C. Mathematical model for sandwich ELISA when “hook-effect” observed

\mathbf{A} (detector antibody), \mathbf{B} (soluble protein) \gg \mathbf{C} (capture antibody)

$$[ABC] = \frac{\alpha [C]_t \frac{[A]_t + [B]_t + K_{AB} - \sqrt{([A]_t + [B]_t + K_{AB})^2 - 4[A]_t[B]_t}}{2}}{(1 - \alpha) \frac{[A]_t + [B]_t + K_{AB} - \sqrt{([A]_t + [B]_t + K_{AB})^2 - 4[A]_t[B]_t}}{2} + [B]_t + K_{BC}}$$