

C-Reactive Protein (CRP) Monoclonal Antibodies: Validation and Performance

Antibodies Overview

Our specialized antibodies are meticulously designed to target the Native C-Reactive Protein of C-reactive Protein. These antibodies hold its critical importance in diagnostics due to its importance as a marker in the diagnosis and management of various diseases, particularly in the context of inflammation and infection.

Epitope Binning Insight: Unraveling Binding Specificity

Epitope binning is vital for selecting the right antibody pairs in immunoassays. The data below highlights how selecting antibody pairs from distinct epitope bins enhances assay accuracy, sensitivity, and reliability. Antibodies from different bins are less likely to compete or interfere with each other's binding, resulting in minimized background noise and improved precision. This optimized combination of antibodies ensures harmonious interactions, ultimately elevating the overall quality of the immunoassay results.

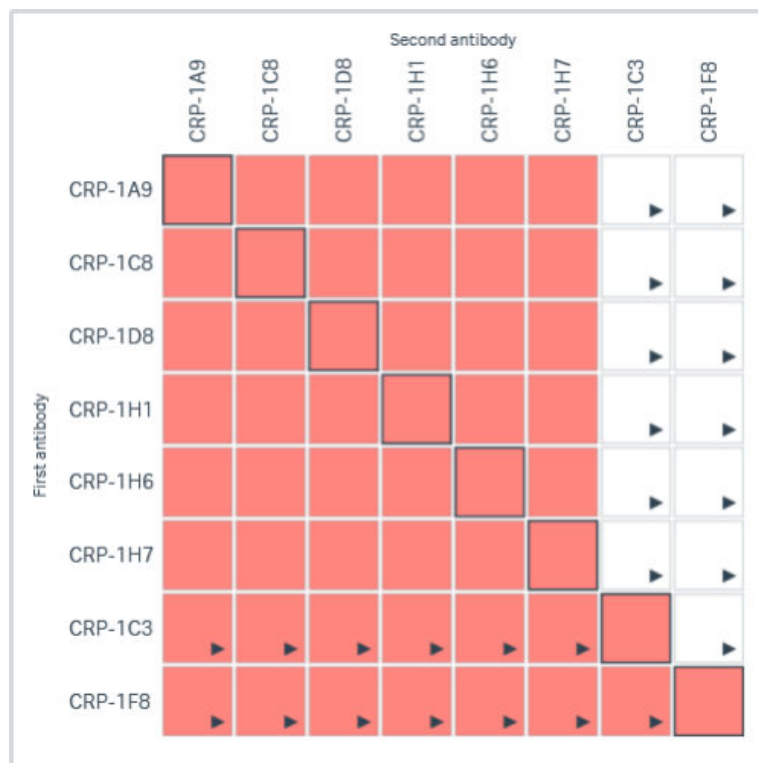


Figure A: Analysis of epitope characterization for antibodies targeting the Native C-Reactive Protein. The antibodies are categorized into groups based on whether they bind or do not bind. Additionally, the catalog number of each antibody is presented.

Potency in Action: EC50 Data

The EC50 data, signifying the concentration at which an antibody attains 50% maximum binding, holds significant importance within immunoassays. This measure provides a direct glimpse into the antibody's strength, sensitivity, and binding affinity—key factors for optimizing assays. With our antibody displaying a lower EC50 value, denoting elevated sensitivity and affinity, it exhibited robust binding efficacy even at a minimal concentration. This data aids in refining assay conditions, ensuring precise detection even in scenarios involving low-concentration analytes. By steering the choice of optimal antibody concentration and enhancing sensitivity, the EC50 data bolsters the accuracy and efficiency of our immunoassay, reinforcing its trustworthiness in practical applications.

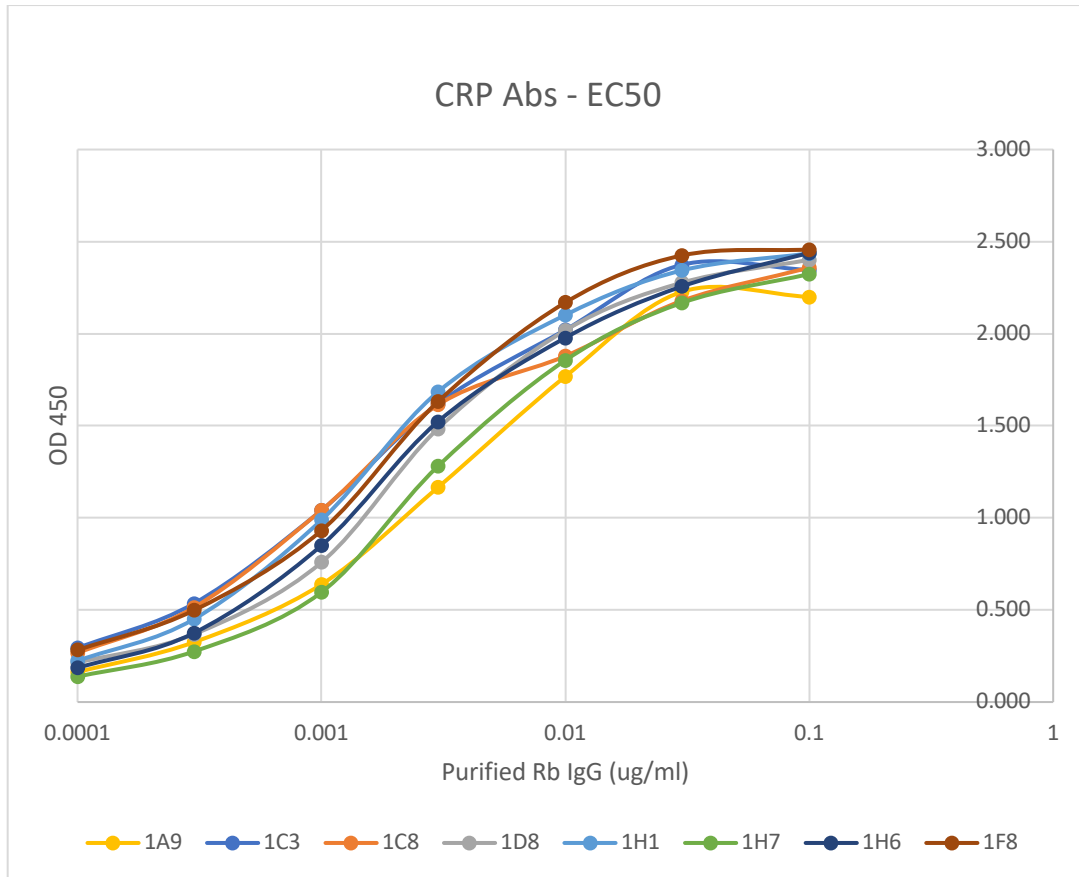


Figure A: EC50 assay of CRP rabbit monoclonal antibodies. Native C-Reactive Protein was coated at 2 ug/ml. HRP conjugated goat anti-rabbit IgG antibody used for detection at 1:10,000. Data was modeled and analyzed with GraphPad-Prism.

Rigorous Quality Control ISO 17025:2017

We make sure our IVD grade antibodies meet the highest standards, and our ISO-controlled production process plays a key role. At every step, from making the antibodies to purifying them, we rigorously test to ensure they are consistent, reliable, and perform well. Following ISO standards means we have set procedures in place that help us maintain consistent quality, making sure every batch is just as good as the last. Our commitment to this process shows how dedicated we are to providing you with antibodies you can trust for your immunoassay need.

Understanding C-Reactive Protein (CRP) in Immunoassays

What is C-Reactive Protein?

C-reactive protein (CRP) is a protein made by the liver and released into the bloodstream in response to inflammation. It plays a crucial role in the body's immune response by helping to fight infection and heal injuries.

Why Measure CRP?

Measuring CRP levels through immunoassays is important for several reasons:

- **Detecting Inflammation:** Elevated CRP levels can indicate inflammation in the body, although they do not pinpoint the exact cause or location.
- **Diagnosing and Managing Diseases:** CRP is a valuable tool in diagnosing and monitoring conditions like bacterial infections, autoimmune diseases, and systemic inflammations.
- **Assessing Cardiovascular Risk:** High-sensitivity CRP (hs-CRP) tests can help evaluate the risk of cardiovascular diseases, such as heart attacks and strokes.
- **Monitoring Treatment Efficacy:** Changes in CRP levels can indicate how well a patient is responding to treatment for inflammatory conditions.
- **Differentiating Infections:** CRP levels can sometimes help differentiate between bacterial and viral infections.

How Does CRP Testing Work?

CRP testing is typically done through a blood test. The process involves:

1. **Blood Sample Collection:** A small blood sample is taken from a vein in your arm.
2. **Analysis in Laboratory:** The sample is analyzed using immunoassay techniques to measure the CRP level.
3. **Interpreting Results:** Your healthcare provider interprets the results, considering other tests and your overall health status.

Understanding Your Results

- **Normal Range:** Typically, a normal CRP level is below 10 mg/L, but this can vary.
- **Elevated Levels:** Higher levels might indicate inflammation or infection, but further tests are often required for a specific diagnosis.

