

H.Pylori (Catalase) Monoclonal Antibodies: Validation and Performance

Antibodies Overview

Our specialized antibodies are meticulously designed to target the Catalase Protein of H.Pylori. These antibodies are vital tools that enable accurate detection and characterization of H.Pylori infections, crucial for diagnostic and research applications.

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.

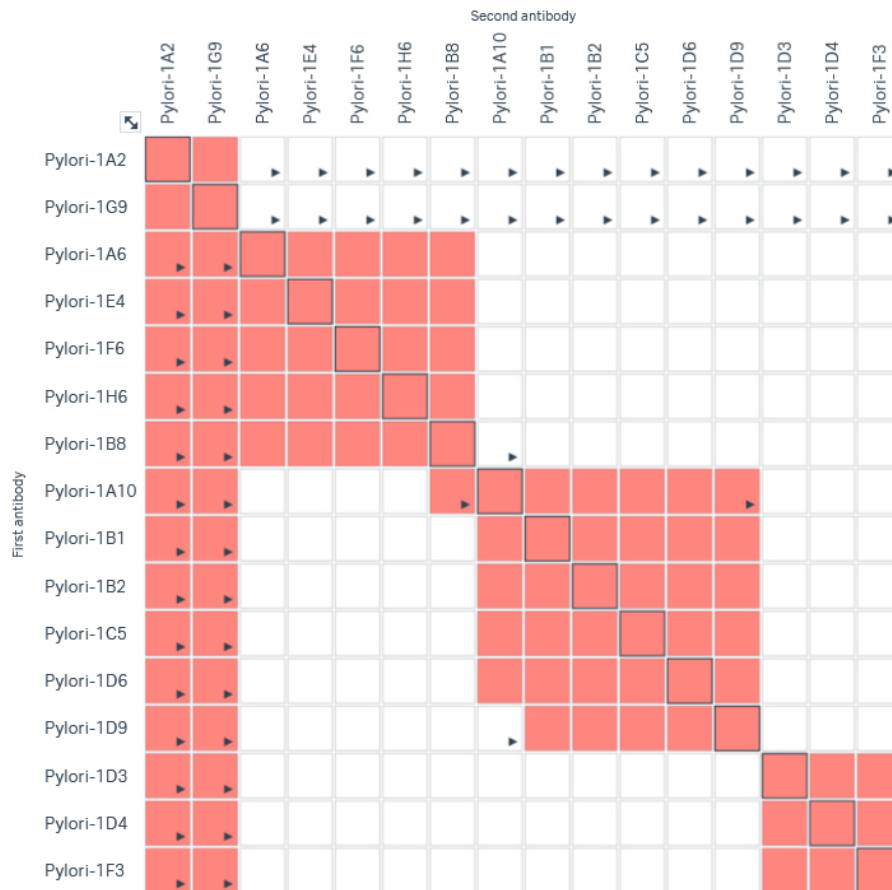


Figure A: Analysis of epitope characterization for antibodies targeting the H.Pylori Catalase protein. The antibodies are categorized into groups based on whether they bind or do not bind. Additionally, the catalog number of each antibody is presented.

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.

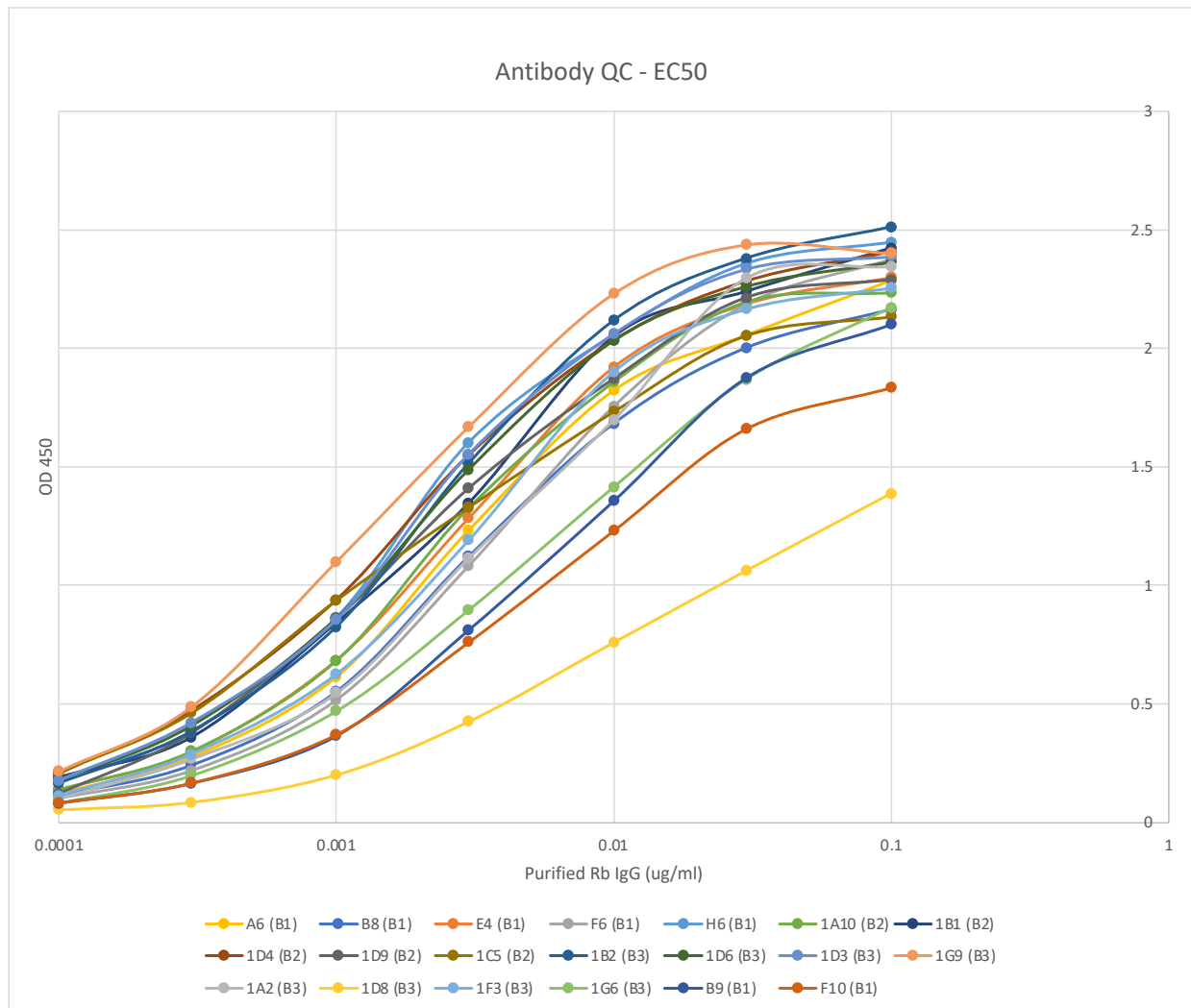


Figure A: EC50 assay of H.Pylori rabbit monoclonal antibodies. Full-length recombinant Catalase protein was coated at 2 ug/ml. HRP conjugated goat anti-rabbit IgG antibody used for detection at 1:10,000. Data was modeled and analyzed with GraphPad-Prism.

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.

About H.Pylori

Helicobacter pylori (H. pylori) is a bacterium with a distinctive spiral shape that colonizes the stomach lining and is closely associated with various gastrointestinal ailments, including gastritis, peptic ulcers, and even stomach cancer. The importance of immunoassays in the context of H. pylori detection cannot be overstated. These laboratory techniques, based on the specific binding properties of antibodies, offer a range of advantages. They exhibit an exceptional level of sensitivity, capable of identifying even minuscule amounts of H. pylori antigens or antibodies in various patient samples like blood, stool, or breath. This sensitivity ensures that infections can be diagnosed accurately, even in their early stages. Furthermore, immunoassays are highly specific, distinguishing H. pylori from other microorganisms, thus minimizing the risk of false-positive results. Moreover, their non-invasive nature is particularly valuable, as they eliminate the need for more invasive procedures, such as endoscopy, for diagnosis. Additionally, immunoassays play a vital role in monitoring the effectiveness of H. pylori eradication therapy over time. The timely and precise detection facilitated by immunoassays is instrumental in guiding treatment decisions, managing gastrointestinal diseases, and, ultimately, preventing severe complications associated with H. pylori infections, enhancing patient outcomes, and reducing the risk of long-term complications, such as gastric cancer.