M. tuberculosis (LAM) Monoclonal Antibodies: Validation and Performance

Antibodies Overview

Exonbio has developed core diagnostic ingredients recombinant rabbit anti-Mycobacterium tuberculosis monoclonal antibody for rapid test kit of Mycobacterium tuberculosis to evaluate the related human infectious disease.

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.

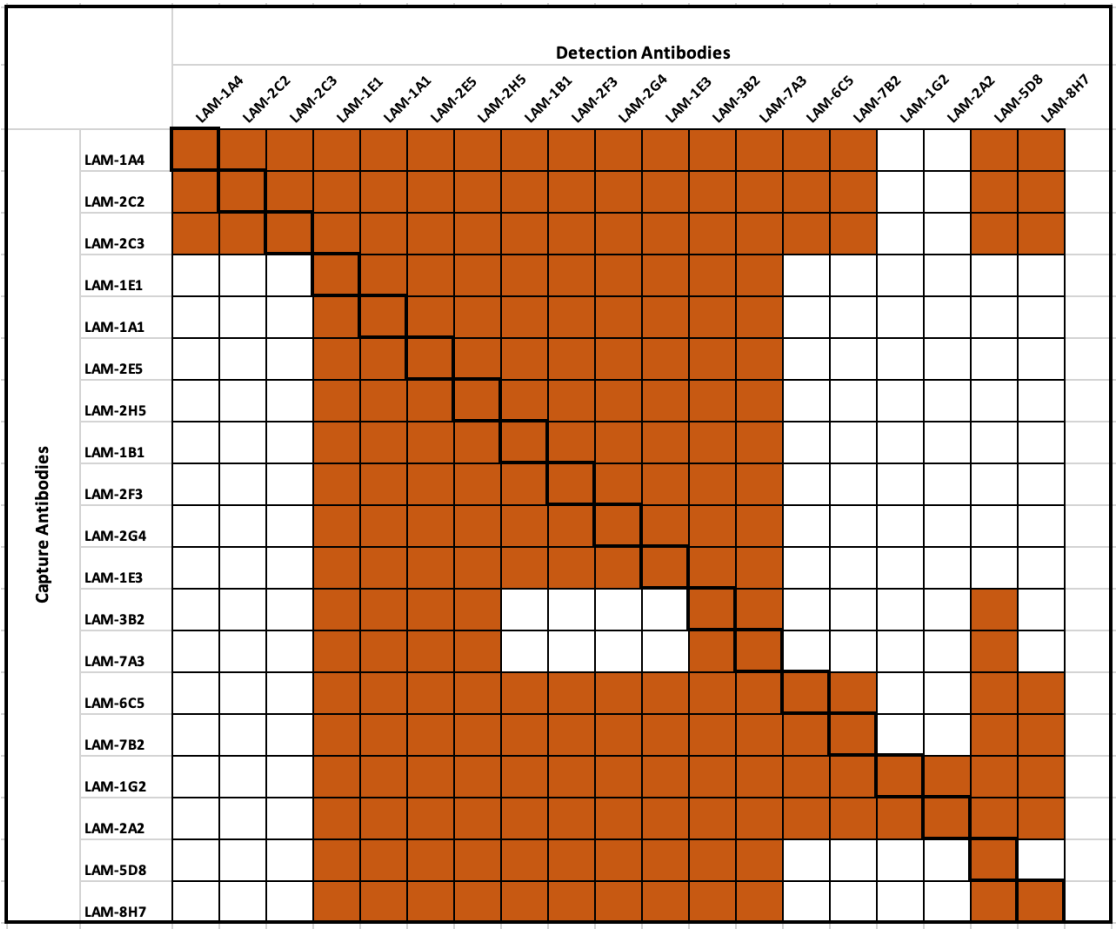


Figure A: Analysis of epitope characterization for antibodies targeting the LAM protein. The antibodies are categorized into groups based on whether they bind or do not bind. Additionally, the catalog number of each antibody is presented.

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.

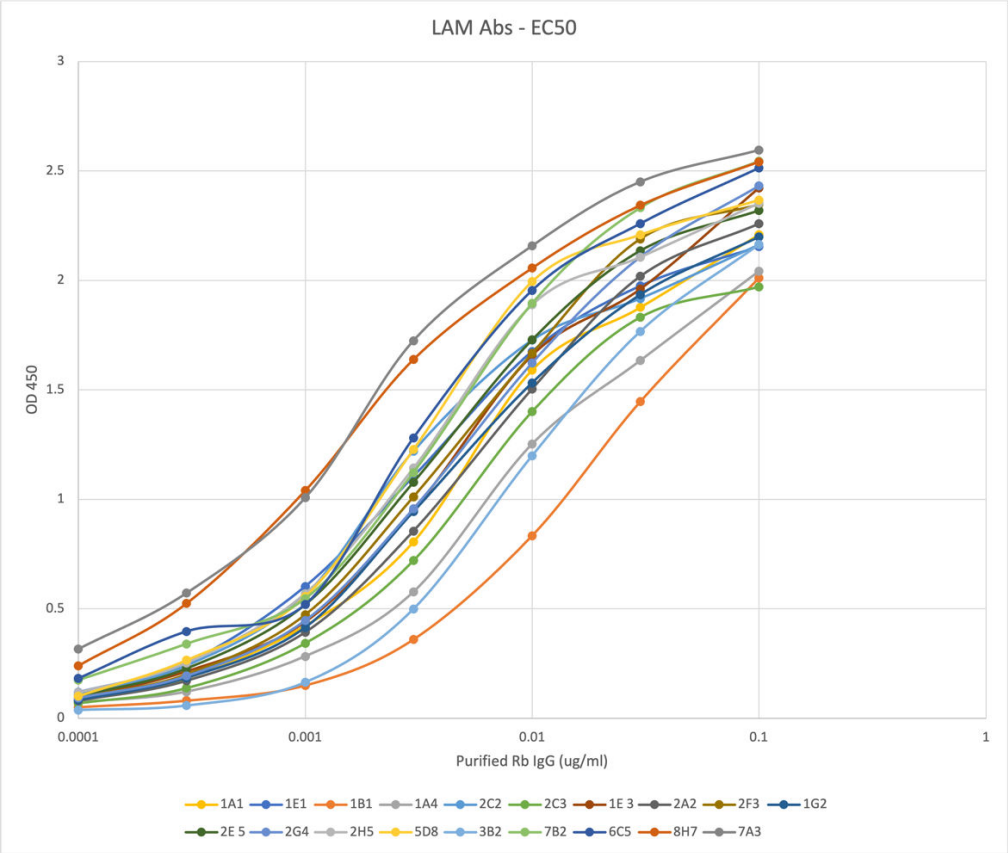


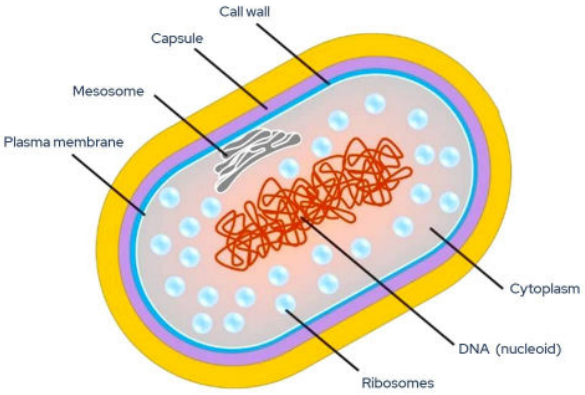
Figure A: EC50 assay of anti-NP FluA rabbit monoclonal antibodies. Full-length recombinant LAM protein was coated at 2 ug/ml. HRP conjugated goat anti-rabbit IgG antibody used for detection at 1:10,000. Data was modeled and analyzed with GraphPad-Prism.

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.

M. Tuberculosis - Lipoarabinomannan (LAM)

Tuberculosis (TB) is a global burden, affecting millions of people worldwide. Mycobacterium tuberculosis is a causative agent of TB and understanding the biology of M. tuberculosis is essential for tackling this devastating disease. The cell wall of M. tuberculosis is highly impermeable and plays a protective role in establishing infection. Lipoarabinomannan (LAM) is the mycobacterial glycolipid containing a long mannose polymer. LAM structures have a significant impact on the cell wall integrity of mycobacteria. The structural role for LAM is important for the pathogenesis of tuberculosis is the only WHO-endorsed TB biomarker that can be detected in urine, an easily collected sample.



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