

# Influenza B Nucleocapsid Antibodies: Validation and Performance

## Antibodies Overview

Our specialized antibodies are meticulously designed to target the Nucleocapsid Protein of Influenza B viruses. These antibodies are vital tools that enable accurate detection and characterization of Influenza B 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.

		Second Antibody													
		FluB50-1A4	FluB50-3B4	FluB50-1H1	FluB50-2D1	FluB50-3A2	FluB300-2E5	FluB50-1B7	FluB300-1A2	FluB300-1E3	FluB50-1H3	FluB300-1F7	Flu50-3G6	FluB50-1E2	
First Antibody	FluB50-1A4	Orange	Orange	Orange	Orange										
	FluB50-3B4	Orange	Orange	Orange	Orange										
	FluB50-1H1	Orange	Orange	Orange	Orange										
	FluB50-2D1	Orange	Orange	Orange	Orange										
	FluB50-3A2					Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange		
	FluB300-2E5					Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange		
	FluB50-1B7						Orange	Orange	Orange	Orange	Orange	Orange			
	FluB300-1A2						Orange	Orange	Orange	Orange	Orange	Orange			
	FluB300-1E3						Orange	Orange	Orange	Orange	Orange	Orange			
	FluB50-1H3						Orange	Orange	Orange	Orange	Orange	Orange			
	FluB300-1F7												Orange		
	Flu50-3G6													Orange	
	FluB50-1E2														Orange

**Figure A:** Analysis of epitope characterization for antibodies targeting the Influenza B nucleocapsid 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.

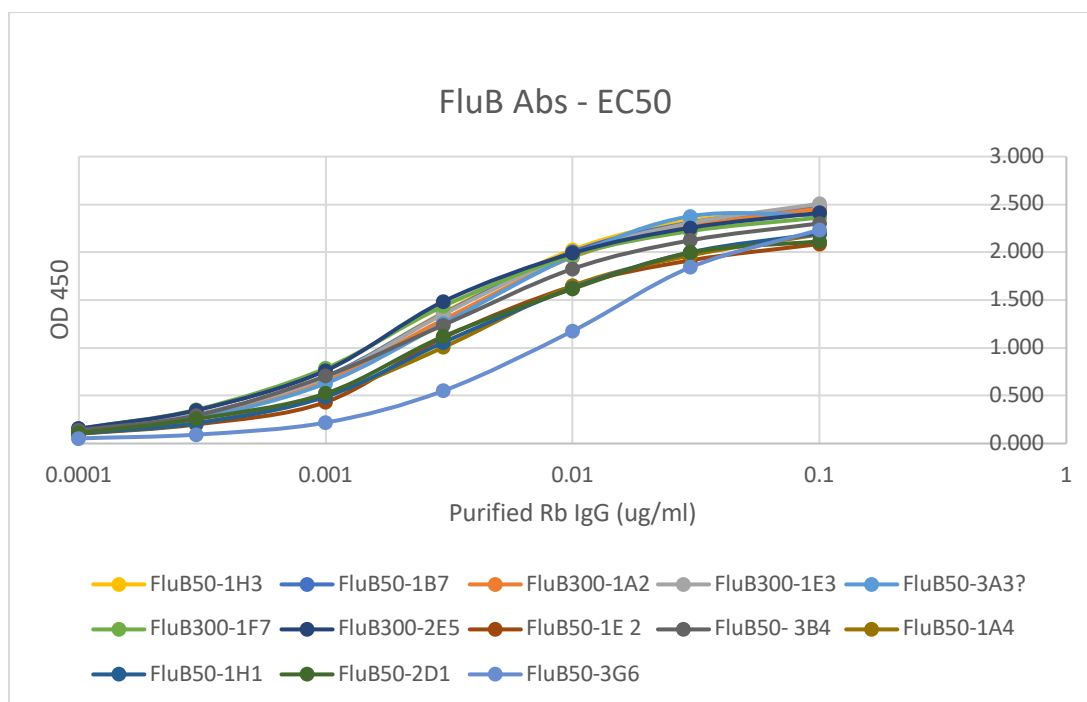


Figure A: EC50 assay of anti-NP FluB rabbit monoclonal antibodies. Full-length recombinant nucleocapsid protein was coated at 2 ug/ml. HRP conjugated goat anti-rabbit IgG antibody used for detection at 1:10,000. Data was modeled and analyzed with GraphPad-Prism.

## 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 Influenza B

Influenza B viruses are separated into two distinct genetic lineages (Yamagata and Victoria) on the basis of differences in the HA glycoprotein. Influenza B viruses from both lineages have co-circulated during most influenza seasons since the 1980s. Influenza viruses undergo constant genetic change, which has substantial impact on induced immunity and considerations for vaccine composition. Two main types of changes are recognized. Point mutations and recombination events occur in the viral genome, resulting in constant emergence of new virus variants. This phenomenon is termed “antigenic drift”. While it occurs among both influenza A and B viruses, influenza A viruses undergo antigenic drift more rapidly than influenza B viruses. Frequent emergence of antigenic variants through antigenic drift is the virologic basis for seasonal influenza epidemics, and necessitates consideration of adjustment of vaccine viruses each season.

